# ROYAL UNITED SERVICE INSTITUTION.

MAY, 1912.

## SECRETARY'S NOTES.

### I.—NEW MEMBERS.

The following officers joined the Institution during the month of April, 1912:—

Lieutenant A. P. F. Lyon, Gordon Highlanders.
Captain C. O. Denman-Jubb, West Riding Regiment.
Lieutenant W. S. Chalmers, R.N.
Major C. A. Wilkinson, King's Shropshire Light Infantry.
Captain A. S. Weldon, North Staffordshire Regiment.
Captain A. E. Erskine, R.H.A.
Captain N. E. Swan, Yorkshire Regiment.
Lieutenant O. M. Parker, Devonshire Regiment.
Captain C. W. E. Gordon, Royal Highlanders.
Second-Lieutenant Lord E. Fitzgerald, Irish Guards.
Second-Lieutenant R. E. G. A. de Trafford, Royal Fusiliers.
Major G. B. Laurie, Royal Irish Rifles.
Major-General C. V. F. Townshend, C.B., D.S.O.
Captain J. St. A. Maughan, R.A.M.C.
Captain A. W. W. Simpson, 5th Bn. Manchester Regiment (T.F.).
Lieutenant F. M. Baird, 9th Bn. Argyll and Sutherland Highlanders (T.F.).
Captain K. J. Roy, Middlesex Regiment.
B. Hansford, Esq., T.F.A. and D.L. City of London.
Second-Lieutenant the Marquis of Titchfield, Royal Horse Guards.
Second-Lieutenant R. St. J. Blacker Douglass, Irish Guards.

### II.—LENDING LIBRARY.

In order to avoid delay, members applying for books on any particular campaign are requested to state whether they read French or German.

### III.—CATALOGUES OF NAVAL AND MILITARY MUSEUMS.

The following catalogues of Naval and Military Museums are available for reference (apply to the Secretary).

Army Museum, Paris—
(1) Decorations and Medals.
(2) Colours, Trophies and Historical Exhibits.

Artillery Museum, Paris—
(1) General Catalogue.
(2) Uniforms.

Marine Museum, Paris.
Royal Arsenal, Berlin.
Military Museum on Field of Leipzig.
War Museum, Vienna.
Historical Art Collections, Vienna.
Rathaus' Collection of Arms, Vienna.
Treasury Collection, Vienna.
Waterloo Museum (Cotton's).
Artillery Museum, Lisbon.
Peninsula War, Centenary Exhibition, Lisbon.
Museum Antiquities of Scotland.
Royal Naval Exhibition, Chelsea, 1891.

The Secretary would be glad to receive for the Institution similar catalogues which are not in this list.

## IV.—REGIMENTAL COLOURS.

The Institution is prepared to arrange for the repairs to regimental colours and cavalry standards, in service or otherwise. A very large number have been repaired during the past eight years.

Enquiries having been made as to the cost of these repairs, the Secretary begs to state that the average cost is about £4 a colour, of which the Institution only receives 10s. a colour, to cover the cost of materials, carriage, etc.

## V.—ADDITIONS TO THE MUSEUM.

(6423). A French bayonet taken from the Irish Rebels in 1798 (presented).

(6424). A coloured print of an officer in full dress (Captain Lord William Hill) of the Royal Scots Greys, dated 1844.—Given by Lieut.-Colonel J. G. Downing.

(6425). Shako Plate of the Royal Military College, Sandhurst, worn from 1871 to 1878.—Given by Captain H. M. McCance, late The Royal Scots.

(6426). Officer's Helmet Plate, The Royal Scots, 1881 to 1904.—Given by Captain H. M. McCance, late the Royal Scots.

(6427). Bronze Medal to commemorate the taking of Carthagena, 1st April, 1741. Obverse:—Don Blas de Leso, the Spanish Commander, kneeling between Admiral Vernon and Commodore Brown, surrenders his sword to Admiral Vernon. Legend:—The pride of Spain humbled by Admiral Vernon and Commodore Re Brown. Reverse:—Six ships entering Porto Bello Harbour. Legend:—Porto Bello taken by Admiral Vernon with six ships, November 22nd, 1739 (presented).

(6428). A M.L. Percussion Rifle with Bayonet, Heurteloop's patent, 1838, the hammer being below the barrel, and the arrangement for capping of curious construction.

(6429). Soper's B.L. Rifle with laterally hinged block, patent 1868.

(6430). A B.L. bolt-action Rifle, made at Spandau, 1862 model (Prussian needle gun).

(6431). A Belgium B.L. Percussion Rifle, with bolt action for patent cartridge and separate cap.

(6433). An Iron Ball picked up on the battlefield of Albuera (fought May 16th, 1811).—Given by Raphael Reynolds, Esq., of Lisbon.

(6434). Walking Stick made from a piece of the keel of H.M.S. "Shannon," which fought the "Chesapeake," 1813.—Given by Admiral Sir Cyprian H. G. Bridge, G.C.B.

(6435). An engraving of Hannah Snell, the female Marine, from a drawing done from life, with her own consent, by L. P. Boitard, and published in 1750. She was born at Worcester in 1723, and entered herself as a Marine in Colonel Frazier's Regiment in 1745, served on H.M. Sloop "Swallow" in the East Indies, was present at the siege of Pondicherry and in all the other sieges of that expedition; she received in all 12 wounds, some of which were dangerous, and was put into hospital for the cure of the same. She returned to England in 1750 in H.M.S. "Eltham," and took her discharge without the least discovery of her sex.

(6436). Four small Oil Paintings on panels of the Chinese Forts on the Canton River, executed in 1833-1834.—Given by Miss L. S. Kensington.

(6438). Officer's Belt Buckle of the 108th Foot (Madras Infantry), worn up to 1881.—Given by Major-General H. Lock.

## VI.—REGIMENTAL BANDS.

The Council propose during the Autumn session to arrange a lecture on the "History of Regimental Bands" and to illustrate it with the music and band instruments of about 100 years ago. Regiments and corps possessing such instruments would greatly facilitate the success of the undertaking if they would lend them for the occasion to the Royal United Service Institution. The instruments required are trumpets, hautboys, hand horns and serpents. The Secretary would be pleased if Band presidents would communicate with him on the subject. It is hoped also at this lecture to raise the whole question of Regimental and Corps bands.

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## PRINCIPAL ADDITIONS TO LIBRARY.

April, 1912.

**La Doctrine de Défense Nationale.** By Captain Sorb. 8vo. 5s. 8d. (Berger-Levrault et Cie). Paris, 1912.

**1812—La Guerre de Russie.** By Arthur Chuquet. 8vo. 5s. 8d. (Fontemoing et Cie). Paris, 1912.

**Cavalerie.** By Captain Loir. 8vo. 6s. 9d. (R. Chapelot et Cie). Paris, 1912.

**La Stratégie—Historique Evolution.** By Commandant Mordacque. Crown 8vo. 2s. 8d. (L. Fournier). Paris, 1912.

**L'Envers de la Guerre de Course—La verité sur l'Enlèvement du Convoi de St. Eustrache par Lamotte-Picquet (Avril-Mai, 1781).** By Lieutenant de Vaisseau Castex. 8vo. 1s. 8d. (Presented by Publishers) (L. Fournier). Paris, 1912.

**Deutschland und der Nächste Krieg.** By General F. von Bernhardi. 8vo. 5s. 5d. (J. C. Cotta). Stuttgart and Berlin, 1912.

**A Genealogical History of the Dormant, Abeyant, Forfeited, and Extinct Peerages of Great Britain.** By Sir Bernard Burke, Ulster King of Arms. 8vo. 84s. Illustrated. (Harrison). London, 1866.

**Handbook for .303 in. and .303 in. Converted Maxim Machine Guns (Magazine Rifle Chamber).** Official 12mo. 9d. Illustrated. (Presented) (H.M. Stationery Office). London, 1911.

**A New Map of Eastern Virginia and Maryland to illustrate the Campaigns of 1861 to 1864.** Scale ten miles to an inch. Size 20 inches by 22. 1s. 6d. (Presented by the Publishers) (Sifton, Praed & Co., Ltd.). London, 1912.

**The First and Second Sikh Wars.** Compiled for the General Staff, India, by Lieut.-Colonel R. G. Burton, 94th Russell's Infantry. 8vo. (Presented by the Chief of the General Staff, India). (Government Central Branch Press). Simla, 1911.

**A Polish Exile with Napoleon.** By G. L. de St. M. Watson. 8vo. 12s. 6d. Illustrated. (Harper & Brothers). London, 1912.

**Napoleon and King Murat.** By Albert Espitalier. Translated from the French by J. Lewis May. 8vo. 12s. 6d. Illustrated (John Lane). London, 1912.

**Belgium and Holland, including the Grand-Duchy of Luxembourg.** By Karl Baedeker. Crown 8vo. 6s. (T. Fisher Unwin). London, 1910.

**Questions and Answers on Tactics.** By Capt. J. Demangel, 13th Edit. 8vo. 6s. (Presented by Publishers) (Forster Groom & Co., Ltd.). London, 1912.

**Epochs of Modern History—Frederick the Great and the Seven Years' War.** By F. W. Longman, 9th Edit. Crown 8vo. 2s. (Longmans, Green & Co.). London, 1908.

**A History of the Indian Mutiny.** By G. W. Forrest. Vol. 3. 8vo. 20s. (William Blackwood & Sons). Edinburgh, 1912.

**The Napoleonic Campaign of 1805.** By Capt. F. W. O. Maycock, D.S.O. Crown 8vo. 3s. 6d. (Presented by Publishers) (Gale & Polden, Ltd.). London, 1912.

**La Campagne de 1815.** By General C. von Clausewitz. Translated into French by Captain Niessel. 8vo. 3s. 2d. (R. Chapelot et Cie). Paris, 1900.

**The Military Danger of Home Rule for Ireland.** By Major-General Sir Thomas Fraser, K.C.B., C.M.G. Crown 8vo. 2s. 6d. (Presented by Author) (John Murray). London, 1912.

**Official Handbook of the Panama Canal.** 2nd Edit. Compiled by the Secretary of the Isthmian Canal Commission. 8vo. Illustrated. (Presented by Capt. H. M. Doughty, R.N.) Ancon, 1911.

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NOTE.—Owing to a printer's error the "Scrap Book of Photographs of Indian Mutiny Celebrities" which appeared in the "Principal Additions to the Library" in last month's JOURNAL, was priced at 4s. This book which was presented by Lieut.-Colonel F. C. Maisey, is a collection of valuable old photographs, and no price should have been placed against it.

# THE JOURNAL
OF THE
# ROYAL UNITED SERVICE INSTITUTION.

VOL. LVI. MAY, 1912. NO. 411.


[Authors alone are responsible for the contents of their respective Papers.]

## MILITARY ESSAY, 1911.

*Subject:—*

"THE BEST NATIONAL SYSTEM FOR PROVIDING THE NECESSARY MILITARY FORCE: (I) TO SECURE THE SAFETY OF THE UNITED KINGDOM ON LAND; (II) TO SUPPORT THE DEFENCE OF THE EMPIRE; (III) TO ASSIST IN MAINTAINING THE BALANCE OF POWER IN EUROPE."

By

CAPTAIN H. T. RUSSELL, R.A. (retired pay).

*Motto*:—In accordance with rule (6):—

*"Ce n'est pas à coups de lois, mais par le fer et par le sang, que se crée une Armée."*

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## INTRODUCTION.

A National Military System provides both land forces and sea forces, whose *rôle* in war is complementary.

In any attempt to suggest even the outlines of a Military System which shall be suited to the United Kingdom, this complementary *rôle* must be borne in mind when treating of the recruiting, maintenance, or organization, of either class of force.

It will be convenient in the first instance to examine the terms of our reference, and to adopt certain interpretations of the sub-heads thereof. Accordingly:—

(1) *The safety of the United Kingdom on land* will be taken as equivalent to the territorial (land) defence of the British Islands.

(2) *Support of the defence of the Empire* will be taken as including all military action, beyond the confines of Europe, undertaken by forces recruited within the United Kingdom in defence of our overseas possessions, in co-operation with any local forces available.

(3) *Assistance in maintaining the Balance of Power in Europe* will be taken as including all military action, within the limits of Europe, undertaken by forces recruited within the United Kingdom, in co-operation with the forces of an allied nation.

The necessity for these special interpretations with regard to co-operative action in paragraphs (2) and (3) arises out of the use of the words "support" and "assistance" respectively.

The factors which decide the potential military strength of a State are threefold, *viz.*:—

(1) Natural or physical; (2) moral or intellectual; and (3) technical or artificial.

NATURAL OR PHYSICAL FACTORS ARE:—Geographical situation, area, climate, topography, fertility, nature and extent

of frontiers, possession of Dependencies of economic or strategic value, the distances of such Dependencies from each other and from the Motherland and from the organized territories of possible enemies.

MORAL OR INTELLECTUAL FACTORS ARE:—Virility of race, homogeneity of population, religion, culture, stability of the national temperament, and special politico-military genius.

TECHNICAL OR ARTIFICIAL FACTORS ARE:—Aggregate resources and wealth, aggregate population (as determining the numerical limitations to armed forces), the statistical distribution of wealth and population, political and fiscal organization, internal and external communications, sea-commerce and sea-power and the ratio between them, perfection of armaments in the technical sense, perfection of the Military System, and the advancement of military education.

The Military System, then, is only one of many factors, but it is all-important, since it is one of the few factors concerning which it may be claimed that a high degree of excellence may outweigh deficiencies and disadvantages under other heads.

It is, moreover, a comparatively elastic factor. The majority of the remaining factors are either fixed, or at most can be varied only through slow evolutionary processes. A Military System can be varied comparatively rapidly, and will exhibit the results of variation in a comparatively brief period.

The Military System of a State should be framed in accordance with the burden of responsibilities undertaken by that State. In practice, however, it is framed rather in accordance with the politico-military genius of the people, who may or may not realize the full extent of their responsibilities.

The *raison d'être* of a Military System is to provide military forces sufficient in numbers and quality, and to organize both *personnel* and *matériel*, to meet possible military requirements.

In all cases the *ultimate* (or capital) military requirements are twofold, *viz.*:—

(1) The conquest-by-invasion of a national enemy, this being the only effective form of conquest, and the shortest road to relief from his hostile enterprises.

(2) The defeat of an attempt at conquest-by-invasion, undertaken by a national enemy against the Motherland.

There may be numerous and important *secondary* requirements. Such are Colonial and "savage" warfare, the policing of distant possessions, retention of these possessions, and support of the Civil Power.

These secondary requirements must never be permitted to mould the Military System in a shape unfitting it to cope with the primary requirements, nor must they be allowed to bulk too largely in popular estimation.

The essence of a Military System is the *man-problem*. The index of its efficiency is the ratio "*man-power to responsibili-*

*ties.*" In the absence of a sufficient *number of men* no skill in organization, no knowledge of the art of war, no energy in training, no technical perfection of armament, no belated popular enthusiasm, can avail.

Weight of numbers, when that weight can be applied at the decisive point, in the decisive direction, at the decisive moment, in obedience to a decisive will-power, spells decisive success in all war, by land or sea.

The "best" Military System is that which renders the ratio "*man-power to responsibilities*" a maximum, by providing the maximum number of men, and impressing upon them an organization and training and an equipment which ensure personal proficiency and mobility in the highest attainable degree.

The supreme importance of numbers arises out of the creation of Nations-in-arms, a creation brought about by evolutionary processes as inevitable as all similar processes in the field of human activity. The advent of the Nation-in-arms, a cumbrous affair in truth from the standpoint of war-strategy, has profoundly modified the outlook of the human race upon war in general, has changed the character of warfare between civilized nations, and has drastically affected strategical procedure.

The more widely-diffused the knowledge of war-conditions the less the anxiety of the ordinary individual to expose himself to their perils. This tendency, very far from promising any hope of the *abolition of war*, serves merely to place a premium upon virility of race, toughness of national fibre, and steadfastness of national purpose.

There are five possible methods of recruiting military forces, five possible bases for a Military System. These are:—

(1) Universal and legally-compulsory liability to military service for all able-bodied male nationals.
(2) Universal and legally-compulsory liability to conscription for all able-bodied male nationals.
(3) Legal compulsion applied to a limited category of able-bodied male nationals.
(4) Voluntary engagement for hire of male nationals.
(5) Engagement, which must needs be voluntary, of male aliens.

*Or*, some permutation or combination of the above.

A *personnel* having been obtained by one or other of these means, there are two possible systems of maintenance during the period of training and service in the Active Forces. These are:—

(1) Continuous training and service.
(2) Intermittent training and nominally continuous "service."

In a force or army maintained upon system No. (1), training proceeds systematically uninterruptedly and intensively,

throughout the entire period of colour-service. In system No. (2), sometimes alluded to as the "Militia System" or the "compulsory-*training*" System, the *personnel* is subjected to a brief initial period of intensive training and is then dismissed, to re-assemble at stated periods for further instruction, until passed to a Reserve formation.

These several principles will first be discussed in general terms, with a view to elucidating their inherent merits and defects, and selecting those principles found "best" in the experience of the great military Powers.

The strategical situation of the United Kingdom, and the strategical conditions affecting the employment of its forces, will next be reviewed. An attempt will be made to demonstrate that, whilst this situation and these conditions are in some respects peculiar, the admitted peculiarities are not of a nature to justify the installation of a Military System *less* efficient than those adopted by the great Powers.

Finally, an outline will be given of a Military System which in the writer's opinion is both satisfactory and imperatively necessary. Only an outline can be given within the limits of an Essay, and political complexities, with which a military officer has no direct concern, will perforce be neglected.

## PART I.

### THE SEVERAL POSSIBLE BASES OF THE MILITARY SYSTEM.

In a system based upon Universal Compulsory Service, as many recruits as may be required are selected by a process of examination from amongst those males who attain a prescribed *military age* in any year, and subjected to intensive training under discipline in the active units of the fleet and army. This period of training is usually reduced to the minimum adjudged sufficient to ensure solidity and *moral*.

This colour-service completed, either in a single period of continuous service, or in intermittent periods (under the Militia principle), the trained man passes to a First Reserve, remaining liable to recall during a fixed period, or until attaining a specified age, being then free to pursue his civil avocation subject only to brief periodical attendances at military training or exercises, or for mere review.

On completion of his service in First Reserve, the trained man is relegated to a Second Reserve, in which his liability to recall is diminished, as also are the demands made upon him for periodical attendance.

Subsequent periods may be served in further Reserve formations, the liability to recall and the periodical attendances being gradually diminished to extinction.

The higher formations of the Reserve constitute drafting reservoirs of trained men for existing units of the active army or fleet, swelling peace establishments to war strength on mobilization, and replacing the wastage of war. They may

also be organized with a view to the expansion of the field army, supplying fresh units whose *cadres* only are maintained during peace.

The lower Reserve elements are usually intended to provide units of the Second Line, available in emergency for auxiliary services in exterior or offensive wars, but normally relied upon only for those of secondary importance.

The ultimate Reserve elements are frequently restricted by their legal constitution to territorial defence.

In addition, most States reserve a common-law right of summoning for territorial defence the entire male population capable of bearing arms, but not inscribed in the rolls of any organized formation. With this intention, nominal legal liability to service is fixed at an age less by several years than that at which the active army or navy recruit is normally incorporated, whilst the legal maximum age of liability exceeds that at which service in organized formations ceases.

In certain cases, where the aggregate Peace Establishment is legally limited (as for instance is the case in Germany but not in France) the Recruit Contingent annually available furnishes a quota in excess of that required to maintain the prescribed establishments. The surplus recruits are then subjected, as supernumeraries, to a brief modified training, and passed direct to some form of Supplemental Reserve, whence they pass in due course to one or other of the lower Reserve formations.

By adjustment of the physical and other standards, the quota annually incorporated can be made to bear any desired proportion to the available annual contingent, and therefore to the aggregate population. In Germany the standard proportion is in the latter instance, *one per cent.*

Voluntary engagements are, of course, not only permitted but encouraged, as also are re-engagements and extensions of service, these latter providing a most desirable professional leaven in forces necessarily composed for the greater part of young and short-service *personnel.*

Exemptions or postponements of incorporation are usually provided for, to meet cases of individual hardship, unfitness, or grave social disability. Those definitely excused from service are ordinarily required to pay a small military tax.

The attainment of a specified educational standard is accepted as evidence of a superior mentality, entitling an individual to periods of colour-service briefer than the normal, or performed under more favourable conditions. Such youths are encouraged to qualify themselves professionally as Officers of Reserve. It is usual for them to defray themselves the costs of their service, and they are regarded as supernumerary to Establishment.

Any quota required for naval forces is selected from the common recruit contingent, so far as may be by personal choice, regard being had to sea-experience and civil occupation.

The outstanding military feature is, therefore, a large active army, backed by numerous Reserve formations mainly composed of fully-trained men.

It is the existence of these great Reserves which swells the nominal war-strength of the Nation-in-arms to an awe-inspiring total. Undue importance, however, must not be attached to a mere aggregate figure. Indeed, the title "Nation-in-arms" is in some respects unfortunate, since it produces erroneous impressions in the lay mind. No Nation-in-arms could ever apply the total of its nominal resources in any one war. Every Nation-in-arms would acknowledge defeat long before its nominal resources were exhausted.

The truth is that the demands of modern warfare are of a nature that compels a rigorous writing-down of the military value of all lower Reserve formations. This is especially the case for all purposes of exterior or offensive war. Apart from the question of the personal proficiency of reservists long absent from active units, it is a practical impossibility to equip, staff, and provide officers for the vast numbers which would answer a general call to arms. It is improbable in the extreme that any modern State would make such a call.

One thing at least is certain, no State relies upon its lower Reserve elements to supply deficiencies in the Active Army, to replace the latter, or to retrieve the situation should the active army be crushed.

In short, it may fairly be averred that the prime strength of the so-called Nation-in-arms lies in its powerful and mobile Active Army, and in those higher Reserve formations expressly organized beforehand for its support and expansion. Passing beyond that, we enter at once into a domain of improvization and comparative inefficiency. In no country is the organization of lower Reserve formations complete.

The realizable advantages of the system are as follows:—The military forces are identified with the nation, and the roots of the Military System penetrate all social strata. General military knowledge is widely-diffused. Hence the less the probability of serious errors in military policy or political strategy being precipitated by an ill-informed public opinion. The moral fibre of the nation is strengthened by the measure of self-sacrifice involved, and a sense of public and national duty is inculcated.

Legislation affecting the military services is handled by legislators who approach their tasks with some personal knowledge of military requirements, and an instinctive willingness to accept expert opinion.

The burden of service is justly distributed on sound democratic principles, and the growth of the military services keeps pace with growth of population and development of resources. The ratio "man-power to responsibilities" is maintained at practically a constant quantity, or it can be increased at will. This highly desirable end is attained by a simple, unvarying, and well-understood procedure.

The necessary legal machinery is controlled by the Civil and Statistical branches of the Executive Government, which free the Military Directorate from the anxieties and doubts attendant upon all other recruiting systems, leaving it at liberty to devote its energies to problems of organization, strategy, preparation, and war-training.

Since only the best *personnel* is selected, wastage from disease and inefficiency is reduced to a minimum. All accepted recruits are capable of undergoing a strenuous military education, and of supporting military fatigue.

The average standard of intelligence must needs be high, where all social strata are represented, and *moral* (prime mover of military forces) is readily cultivated.

The Officers' Corps, especially, must include at least an average amount of brains of conspicuous ability, resulting in a truly intellectual Staff, and a high standard of professional skill.

Unity of strategical and tactical doctrine, so essential to uniformity of training, and therefore to all concerted action, is easily ensured.

The Administrative Branches of the Services deal with known or readily-ascertainable quantities. All problems of organization are therefore simplified.

The General Staff is free to develop its strategical preparations, assured that the Administrative Branches can and will direct their organization in accordance with General Staff requirements.

The General Staff, in fine, will be placed in its proper position of pre-eminence, unhampered by the fatalistic *non-possumus* attitude of the Administrative Departments, characteristic, for example, of the voluntary system. It will operate in close concert with the statesmen responsible for the national exterior policy.

During the course of a war, the units of the First Line are constantly maintained at full strength by drafts of fully-trained officers and men. Numerous fully-trained Reserve formations are available for duty upon the lines of communication of a field army, for sieges, investments, and forces of occupation. The full power of the active First Line, composed exclusively of young, vigorous, well-developed, and well-drilled men, is set free for the more exacting tasks of field warfare.

The Reserve formations, too, include a sufficiency of highly-trained technical troops, maintained in constant efficiency at practically no cost to the State, by reason of their civil employment being cognate to their military duties.

The system is relatively cheap, since rates of pay are permissibly low, whilst pensions and non-effective charges, as well as "inducements," are reduced to a minimum.

Public and professional attention is focussed upon the efficiency of the active forces, and upon the organization for its support and expansion. Neither money nor brain-power is wasted in directions which do not bear towards these ends.

The maximum numerical strength of *personnel* is rendered strategically mobile, that is, available for prompt application in any theatre, without the necessity of tedious eleventh-hour re-engagements and re-organizations.

Wielding an instrument thus perfected, the heads of the State are enabled to shape and guide the national political strategy to the best advantage, to seize opportunities, to adopt positive policies, and to view the possibility of resistance with comparative equanimity

The social advantages are well-defined and indeed unmistakable. A high proportion of the total male population is passed in review and subjected to healthy discipline at an age when the character is still plastic, with beneficial results in every walk of life. Education, especially, is powerfully affected.

Such are the advantages. It is less easy to ascertain the disadvantages. No well-founded arguments against Universal Service, in its social or economic aspects, can be advanced. It is not within the scope of this Essay to refute those arguments that are advanced. Paradoxical as it may seem, it is probable that the genuine disadvantages are rather military than either social or economic. Isolated instances of abuses, so greedily seized upon by anti-militarist propagandists, are not in themselves evidence of the unsoundness of the system. Rather are they characteristic of the tendencies in general of the countries affected, tendencies which would persist in the absence of any military system whatsoever.

From the purely military standpoint, however, most soldiers will regret the existence of vast armies. Great and cumbrous forces cannot be moved in the game of war like the smaller armies of past epochs. This fact renders leadership an arduous business rather than a matter of zeal and inspiration, war is robbed of many its "attractive" elements. Battle-losses represent not so much the expenditure of *Kanonen-futter* as the loss of valuable brains and muscle.

Nevertheless, none but a Nation-in-arms can hope to contend in warfare against a rival Nation-in-arms.

The principle of Universal Compulsion has been accepted by all States except Great Britain, the United States of America, Spain, the Netherlands, Belgium, China, and certain minor South American Republics.

In the case of the United States of America, geographical remoteness from the territories of organized military Powers has hitherto condoned the evasion. In each of the other cases retention of alternative systems must be ascribed either to financial embarrassment, or to some peculiarity in the politico-military genius of the people, indulgence in the peculiarity being rendered possible by the mutual jealousies of rivals, by toleration, or by sheer good luck. It is significant, too, that few of the Powers mentioned as exceptions to the general rule bear serious responsibilities, or are in a position to adopt positive exterior policies which might involve a conflict of interests.

Indeed, it is probably true to state that at the present day none but a Nation-in-arms dare adopt a positive exterior policy, and the day is at hand when none but a group of such Powers can do so.

Not all the States, however, are enabled to give full logical effect to the principle. There are numerous variations in scope, in organization, and in procedure. In the case of France, for instance, exemptions are rigorously cut down. In Germany and in Russia they are freely accorded.

Austria-Hungary recruits *ad hoc* for her twin Landwehrs, which are really imperfectly-organized National Armies, rather detracting from the efficiency of the "Common Army." This condition arises from the peculiar political links which bind the component portions of the Dual Monarchy, and cannot be defended on purely military grounds.

Opinions differ also as to the desirable minimum period of colour-service, shorter terms making for greater numerical strength of Reserve formations. There is, however, a practical concensus in favour of three years for mounted, two years for dismounted branches. Any shorter periods are adopted with reluctance.

To exemplify the working of the system, the statistics of the German Contingent for 1909 will be quoted.

**German Recruiting Statistics for 1909.**

| | | | |
|---|---|---|---|
| 1 | Approximate total *male* population ... ... ... | 31,080,000 | |
| 2. | Authorized Peace Establishments :— | | |
| | (i) Active Army ... ... ... | 590,325 | N.C.O.'s and men. |
| | (ii) Navy ... ... ... ... | 33,500 | P.O.'s and men. |
| 3. | Proportion of Combined Active Forces to population ... | ·93 | per cent. |
| 4. | Contingent due to appear before Revision Boards : – | | |
| | (i) men aged 20 years ... ... | 534,310 | (appearing for first time) |
| | (ii) ,, ,, 21 ,, ... ... | 361,759 | |
| | (iii) ,, ,, 22 ,, ... ... | 283,674 | |
| | (iv) ,, ,, over 22 years... ... | 46,987 | |
| | Total Contingent ... | 1,226,730 | *or* 3.9 per cent. of total population. |
| 5. | Rejected for reasons stated :— | | |
| | (i) As criminals, etc. ... ... ... | 856 | |
| | (ii) As wholly medically unfit ... | 34,890 | |
| | Total ... | 35,746 | *or* 2.9 per cent. of the Contingent. |
| 6. | Temporarily rejected for medical reasons, or granted postponement for social or civil reasons ... ... ... | 703,164 | *or* 57.3 per cent. of the Contingent. |
| 7. | Already serving as Volunteers aged 20 years or upwards ... ... ... | 37,253 | *or* 3 per cent. of the Contingent. |

8. Enrolled in Reserve Formations for civil or Social reasons, or as supernumeraries :—

| | Navy. | Army. | Total. |
|---|---|---|---|
| In Landsturm ... ... | — | 552 | 552 |
| In *Ersatz* Reserve ... ... | 70 | 11,535 | 11,605 |
| Total ... | 70 | 12,087 | 12,157 |

9. Enrolled in Reserve Formations by reason of physical or constitutional defects :—

| | Navy. | Army. | Total. |
|---|---|---|---|
| In Landsturm ... ... | — | 137,812 | 137,812 |
| In *Ersatz* Reserve ... ... | 2,460 | 79,597 | 82,057 |
| Total ... | 2,460 | 217,409 | 219,869 |

10. Actually incorporated in the Active Forces as compulsory-service recruits :—

| | | |
|---|---|---|
| Men aged 20 years ... ... ... | 100,721 | *or* 19 per cent. of that age. |
| ,, ,, 21 ,, ... ... ... | 54,078 | *or* 15 ,, ,, |
| ,, ,, 22 ,, ... .. ... | 61,734 | *or* 22 ,, ,, |
| ,, over 22 ,, ... ... ... | 2,008 | *or* 4 ,, ,, |
| Total ... | 218,541 | *or* 18 per cent. of the Contingent. |

11. The grand total of recruits obtained for the Active Services was :—

| | Navy. | Army. | Total. |
|---|---|---|---|
| Incorporated recruits ... | 10,779 | 207,762 | 218,541 |
| One-year Volunteers ... (supernumerary to Estab.) | 930 | 12,383 | 13,313 |
| Other one-year Volunteers | — | 1,024 | 1,024 |
| Other Voluntary Enlistments, including those aged under 20 years. ... ... ... | 3,562 | 46,114 | 49,676 |
| **Total** ... | **15,271** | **267,283** | **282,554** |

Special points of interest in these statistics are :—

(1) The large number of rejections for defective physique, in a population notoriously devoted to physical culture.

(2) The high percentage of Volunteers obtained, *viz.* :— for the navy 29 per cent., for the army 22 per cent., of the total recruits joining each service.

(3) The small proportion of recruits accepted over the age of 22 years.

(4) The fact that only 18 per cent. of the total Contingent were finally incorporated as compulsory-service recruits for the Active Forces.

(5) That by a relaxation of physical standards the recruit quota could have been increased enormously.

(6) Nothing is made public concerning the numbers who evade military service by emigration or expatriation.

For the sake of comparison, the Japanese statistics for the same year (1909) will be given :—

1. Contingent due to appear before Revision Boards :—

| | | |
|---|---|---|
| (i) | Men aged 20 years ... ... ... ... ... | 456,453 |
| (ii) | Men previously adjourned .. ... ... ... | 102,864 |
| | Total Contingent ... ... | 559,317 |

2. Rejected for reasons stated, or otherwise unavailable :—

| | | |
|---|---|---|
| (i) | Criminals, etc. ... ... ... ... ... ... | 434 |
| (ii) | Medically unfit . . ... ... ... ... | 8,731 |
| (iii) | Absent, etc. ... .. ... ... ... ... | 27,861 |
| | Total ... ... ... ... | 37,026 |

*or* 6·6 per cent. of the Contingent.

3. Granted postponements for reasons stated :—

| | | |
|---|---|---|
| (i) | As the sole support of their families ... ... | 626 |
| (ii) | Students, etc. ... ... ... .. ... ... | 42,394 |
| (iii) | Resident abroad ... ... ... ... ... | 33,275 |
| | Total ... ... ... ... | 76,295 |

4. The balance of 445,996 men was divided into three categories according to physique, viz.;—(1) the " absolutely fit " (2) the " fit " (3) the " partially fit."

The Active Services are recruited solely from the first category, the remainder being drafted direct to various Reserve formations.

Exact details are not procurable by the writer, but probably the Active Army received about 200,000 carefully-selected recruits.

Switzerland maintains only a Militia army, her Recruiting Statistics for the year 1910 were as follows :—

| | | |
|---|---|---|
| 1. | Recruits examined ... ... ... ... ... | 33,316 |
| 2. | Rejected as medically unfit, etc ... ... ... | 2,461 |
| 3. | Accepted as fit for auxiliary services only ... | 5,969 |
| 4. | Granted adjournments for various reasons ... | 3,784 |
| 5. | Actually incorporated in the Active Forces .. | 21,102 |

*or* 63·3 per cent. of the Contingent.

The high proportion of incorporations must be ascribed to several causes (1) elimination of the palpably unfit during the preliminary training, previous to appearance before the Revision Board, (2) general absence of desire to evade military service, (3) the fact that few exemptions are granted, save for physical disability.

The Swiss Army probably represents the most perfected application of the Militia principle extant; nevertheless it is recognized that Swiss troops would labour under serious disadvantages if opposed to fully-trained forces, and constant demands are made for the extension of the periods of training.

**The Conscriptive System.**

The distinctive feature of a *Conscriptive System* is the annual selection of a fixed Recruit Quota, by some form of lot-casting, from amongst the *personnel* of the Annual Contingent.

Total exemption, or postponement, may or may not be purchasable, whilst the service of a (paid) substitute may or may not be accepted in lieu of personal service.

In principle, as in general outline, the organization of the forces thus recruited, the periods of colour and Reserve service, etc., resemble those obtaining under the typical Universal system. The military advantages, however, are neither so complete nor so well-defined. The military forces are not completely identified with the nation, and they must contain a proportion of "undesirables." It is, in fact, in its social and political aspects that Conscription is seen most clearly to be inherently vicious. It is undemocratic, and offers temptations to corruption and abuse. These features may be ignored or tolerated by public opinion during peace. In war the moral defects will assuredly be revealed.

The adoption of this system is defensible only where encumbered finances, or the absence of an active exterior national policy, compel the maintenance of forces greater than those obtainable by voluntary engagement, but less than would be furnished by universal compulsion.

The only States still adhering to Conscription are:—Brazil, Mexico, the Netherlands, Peru, and Spain. In Spain it is proposed to adopt universal compulsion in the near future. In all these States, except Mexico, the *liability* is universal, and as a general rule voluntary enlistment is relied upon as far as possible. In the Netherlands substitution is not permitted. In Portugal the transition from a conscriptive to a universal system is not yet complete.

Conscription persisted in France until the *débacle* of 1870-1, but must now be regarded by Powers of the first rank as obsolete.

*Legal compulsion of a limited category* obtains in Mexico and Belgium. In the former case, the principle of Universal Service, recognized by the Law of October 1900, remains a dead letter. In so far as voluntary enlistments fail, compulsion is applied to the lower social *strata*, and to criminals, mainly half-caste or Indian.

In Belgium, by the Law of December 1909, personal service is required of one son per family, without exemption by payment. Belgian military organization, however, is not of a nature to commend itself to a World-Power, and it is commonly held that the Belgian people, absorbed in industrialism, fail to maintain forces commensurate with their population, their resources, or the strategic importance of their territory. In all probability, the present Belgian system is but a makeshift.

**The Voluntary System.**

*Voluntary Enlistment* involves in practice reliance upon three different recruiting agencies, *viz.*:—(i) enthusiasm for the profession of arms, (ii) pecuniary inducements, and (iii) compulsion by destitution.

If it were feasible to obtain sufficient recruits of the desired age and maturity, through the first of these agencies, no country would need to consider any other basis of recruiting.

This, however, can only be accomplished if the total forces required bear an exiguous proportion to the total population. Extremely few men enlist, in any country, from motives of pure zeal, and the two latter agencies are by far the most important. Any waves of popular enthusiasm which may set in when a "popular" war is imminent, or has actually commenced, arrive too late to possess a military value.

Most aristocracies can be relied upon to furnish a respectable quota of enthusiasts for the commissioned ranks. In some countries, and particularly in Great Britain, the lower social orders furnish a quota which is surprisingly large in view of their normal conditions of existence, which scarcely make for patriotic enthusiasm. Not only is the British volunteer quota surprisingly large, it is also surprisingly *constant*, though it is difficult to ascertain why this should be so.

In all countries, however, the *bourgeoisie* is, of all classes, the most obdurate in regard to military service, and furnishes the fewest volunteer recruits. The *bon bourgeois*, engrossed in business, in the daily struggle for respectability, overborne by the devouring Moloch of retail trade, the first to feel the pinch of taxation in peace, the first to feel the economic effects of war, the principal sufferer in unsuccessful war, is commonly an anti-militarist at heart, an opponent of Forward Policies, an opportunist, a firm believer in compromise, a sentimentalist on the subject of bloodshed, distrustful of everything included in the word "discipline," and oblivious to the stern necessities of warlike preparation and training.

Nevertheless, the *bon bourgeois*, in the aggregate, is numerically, politically and economically the mainstay of the State, and any military system which fails to obtain from him personal service is foredoomed to failure.

It is precisely in this direction that the Voluntary System breaks down most palpably, since the *bourgeois* is amenable to neither of the recruiting agencies it provides.

Moreover, in order to secure the quota provided by the lower social orders, the age-limit for enlistment must needs be low, usually a great deal below the "military age" fixed in countries provided with either a Universal or a Conscriptive system. This involves a marked immaturity of *personnel*. It is practically necessary to secure this class of enthusiast before he develops into a steady wage-earner.

Enthusiasm, in short, is wholly unreliable as a recruiting agency, since the military business is to-day conducted, so

far as may be, upon business principles, and there are few opportunities therein for distinction or personal advantage.

*Pecuniary inducement* attempts to entice recruits to the colours by holding out to them some prospect of a "military career." The prospects, however, are mediocre of necessity, and this agency has to compete in an ever-rising labour market, usually with conspicuous insuccess. As a result, only the younger and physically-inferior are enticed. High rates of pay mean a high price for dubious raw material. Pay graded according to individual proficiency involves undesirable complications and some danger of jealousies. Only a minority can be permitted to serve with the colours to a pensionable age, in view of the necessity of building up Reserve formations.

As the standards of social comfort and living rise (and they are rising in all countries) the "inducements" must be revised, always in the direction of increase, if they are to remain even tolerably efficacious. Moreover, it is almost impossible to remove a concession once conceded. The Military Budget mounts steadily and automatically. Popular Assemblies first complain of this upward tendency, and next proceed to starve their Budgets into reasonable proportions. The ratio "man-power to responsibilities" is forgotten, and futile attempts are made to increase military potential by technical perfection of equipment. Competition with rivals who purchase their raw materials more cheaply is rendered increasingly difficult.

So much for the policy or agency of inducement.

*Compulsion by destitution* is really the most reliable of the three agencies. The duress of the empty stomach, the family quarrel, the unfortunate love-affair, the initial escapade involving undesirably close contact with the majesty of the Law, combine to furnish the majority of recruits, who, needless to say, are attracted rather by the door of the cook-house than by the glory of the regimental colours, and that usually at a tender age.

It is quite possible, and even probable, that eventually, that is, after a more or less costly and prolonged period of nursing and physical culture and subjection to discipline, these recruits may supply the most valuable portion of the whole *personnel*. Meantime, the efficiency of the Services as a whole is impaired, whilst the presence of considerable numbers known, or believed, to have been recruited by the agency of destitution, tends to degrade the Military Services in the eyes of the more prosperous sections of the community, causing the latter to hold aloof from service.

This involves dangers both military and political. The necessity arises for "popularizing" the Services. Some military or quasi-military formations are devised, in which this prosperous portion of the community can serve without injury to *amour propre*. These semi-military organizations make some pretence of supplementing the numerical deficiencies of the

professional army, whilst proffering special attractions to the self-conscious lower middle classes. For their recruiting only one agency, the most feeble, the agency of enthusiasm, is admitted.

The prime attraction is invariably two-fold, *viz.*:—(i) a much relaxed code of discipline, good order being made dependent upon good will rather than upon a sense of military solidity, (ii) an assurance that active military service will be required only in certain comparatively remote contingencies.

These conditions impose insuperable barriers to serious military training, and involve a relatively low order of organization, since there can be no genuine military organization in the absence of *certainty* as regards recruiting, training, and discipline. The result is a costly conglomeration of ill-trained and ill-equipped troops, endowed upon paper with a martial nomenclature and a theoretical organization, neither of which will bear investigation, or withstand the rude proofs of war.

The permissible total of the Military Budget being a fixed quantity in the eyes of a Popular Assembly, the money for the maintenance of these inefficient Second Line formations must needs be found at the expense of the professional army.

If an additional word of condemnation be necessary, it remains to indicate that these Second Line formations must be recruited *ad hoc,* in competition with the recruiting for the professional forces, and in defiance of all commonsense.

Terms of colour service in a voluntarily-recruited professional army, however, are necessarily long. Some military advantages accrue from this fact, but they are offset by the difficulty experienced in building up proportionate Reserve formations, and by necessary deductions in respect of the considerable periods during which the recruited *personnel* is immature.

It is interesting to note how voluntary recruiting is, in the United Kingdom, affected by the political and economic conditions of the several component territorial areas. Some statistics will be given:—

**Total Population, Number of Paupers, and Number of Regular Soldiers. January, 1910.**

| | Approx. total Population. | Number of Paupers. | Number of Serving Regular Soldiers born in each country. |
|---|---|---|---|
| England... ... ... | 31,500,000 | 885,785 | 183,702 |
| Wales ... ... ... | 2,000,000 | 57,052 | 3,240 |
| Scotland ... ... | 4,750,000 | 113,259 | 18,530 |
| Ireland ... ... ... | 4,500,000 | 102,219 | 22,955 |

**Proportion of Paupers to Total Population.**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| England | ... | .. | ... | 1 pauper in each | | 35 of population. | |
| Wales | ... | ... | ... | ,, | ,, | 35 | ,, |
| Scotland | ... | ... | ... | ,, | ,, | 42 | ,, |
| Ireland | ... | ... | ... | ,, | ,, | 44 | ,, |

**Proportion of Serving Regular Soldiers to Total Population.**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| England | ... | ... | .. | 1 soldier in each | | 171 of population. | |
| Ireland | ... | ... | ... | ,, | ,, | 190 | ,, |
| Scotland | .. | ... | ... | ,, | ,, | 256 | ,, |
| Wales | ... | ... | ... | ,, | ,, | 617 | ,, |

The general inference that we fail to turn to account the potential man-power of both Wales and Scotland is irresistible. On the other hand, the conspicuous aptitude of Englishmen and Irishmen for military service is apparent.

The outstanding features, then, of a military system based upon voluntary enlistment, are:—

1. A comparatively long-service professional army, numerically small, and necessarily including a high proportion of immature *personnel*.
2. Relatively few trained Reserves (if any).[1]
3. Absence of any certainty as regards the yield of the recruiting agencies.
4. Impossibility of intensive training.
5. Compulsory acceptance of many recruits who, under either a Universal or a Conscriptive system, would be classed as unfit.
6. Withdrawal of the flower of the national manhood from the ken of the recruiting agent.
7. Social and political dangers attendant upon estrangement of the military services from the nation at large.
8. Consequent necessity for the maintenance of inefficient Second Line formations.
9. Dependence of recruiting upon racial idiosyncrasies, economic conditions, and political habits of thought.
10. Inordinate and ever-increasing costliness.
11. Popular ignorance of military affairs.
12. Neglect of the ratio "man-power to responsibilities."

It must always be remembered that a voluntary-service army is of necessity a *small* army. The day of small armies is past, nor can the balance be redressed by the individual proficiency or perfected technical equipment of small numbers.

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[1] There are no Reserves in the case of the Army of the United States.

The conditions under which adoption of the voluntary principle appear defensible appear to be as follows:—

1. The State must include a comparatively large population, for the percentage of enlistments will be small.
2. The State must be comparatively wealthy, for the cost will inevitably be high *per* military unit.
3. The State must be in the fortunate position, geographical or political, of fearing no sudden aggression.
4. The State must anticipate no necessity for offensive military action on a large scale.
5. The State must pursue no active exterior policy.
6. The National responsibilities must be few and centralized.

The military forces of such a country will be relatively immobile, for they must perforce be distributed in small numbers over its territory, which presumably will be extensive. Exposure to the enterprises of a powerful adversary will therefore involve risks of failure in detail, before a series of rapidly-delivered strokes. Positive exterior policies are impossible, for the means of military execution will be lacking.

Three Powers only, China, the United States of America, and Great Britain, adhere to the voluntary principle. China may be left out of the reckoning, her internal affairs are in the throes of a revolution at the moment of writing, and none can tell what military changes may not succeed the restoration of order.

It is common knowledge that the United States, since the adoption of positive exterior policies and the advancement of some pretensions to Empire, have experienced the resistance that such pretensions always involve, and have realized the complete inadequacy of their military system. Nevertheless, the responsibilities of the United States are far more concentrated than those of Great Britain, and their military dangers far more remote.

Other important disabilities, too, attach to the voluntary system, these are:—

1. Pre-occupation of the Military Directorate on the score of recruiting uncertainties.
2. Consequent exaltation of the Administrative Branches at the expense of the General Staff.
3. Non-professional control of military affairs.
4. Ill-instructed public and governmental opinion, liable to result in pusillanimity where a bold strategy is called for, and in rash adventure where caution is indicated.
5. Restriction of the moral and physical benefits of military service to a small minority of the people.

Has the Voluntary System, then, *no* merits?

Assuredly it has, apart from the personal efficiency of its long-service *personnel*.

For certain limited purposes, forces recruited by voluntary engagement are, if not indispensable, at least eminently desirable.

Chief amongst these purposes are:—

1. Provision of garrisons for overseas naval bases and fortresses in a World-Empire.
2. Provision of forces of occupation for distant Colonial and other Dependencies, especially when within tropical zones.
3. Conduct of the minor Colonial and savage campaigns incidental to the maintenance of a World-Empire.

Such tasks are preferably performed by forces of the professional type, both on military and on economic grounds. This fact, however, cannot justify adherence to voluntary engagement and long periods of colour-service for an entire army.

The principle, however, may be of the utmost utility when applied in conjunction with a general universally compulsory or conscriptive system.

In the case of a great World-Power the Motherland, which is presumably wealthy, populous, and situated within a temperate geographical zone, must be regarded as the principal reservoir so far as offensive mobile elements are concerned.

The Dependencies, which are presumably relatively less wealthy, less populous, and may often be situated within tropical or sub-tropical zones, will make large demands upon the capital and enterprise of their populations for the purposes of development. Whilst they may reasonably be expected to provide their own forces for purely local defence, they will rely upon the more numerous and more highly-organized forces of the Motherland for defence against really serious aggression. Their responsibilities will be mainly defensive, and not until both population and internal organization have progressed far on the road can they be expected to bear any serious proportion of the burden of Imperial responsibilities, regarded in the aggregate. Even then, unless their political, economic, and fiscal aspirations are identical, and identified with those of the Motherland, there will assuredly be many difficulties in the path of a common organization for military action. It is futile to expect, and still more futile to rely upon, such a common organization, in the absence of the necessary motives. Realization of such a common organization may only be a dream of Utopia. Meantime, practical military needs are urgent.

The only point of present importance is, that any garrisons or forces of occupation contributed by the Motherland, or any expeditionary force despatched from the Motherland to the succour of a threatened Dependency, can have no territorial organization within that Dependency. Each must be fed from

the central reservoir. Calls upon that reservoir may be occasioned by military needs of secondary importance, involving no capital risks. Many of these calls will be of a nature, and the requisite military action will be undertaken under climatic conditions, which demand experience and maturity of *personnel* rather than great numerical strength.

For the execution of such tasks nothing can be more suitable than a professional voluntarily-enlisted army or force. This conclusion is supported by consideration of economy in regard to periodical reliefs, drafts, and necessary changes of station.

The Colonial Army of France furnishes an example of what it is intended to convey. France maintains oversea Colonial garrisons and forces of occupation comprising some 15,000 Europeans, besides maintaining within the Motherland a Colonial Expeditionary Army, recruited by voluntary engagement, or by voluntary transfer from the Home Metropolitan Army, for their support and expansion.

There is clearly much to be said in favour of the principle, even if certain defects are to be noted in its application in the particular case of France.

The *Mercenary System* really needs no discussion, since it is obvious that under modern conditions there is no market in which the requisite *personnel* could be obtained. Some may not, however, recall the fact that we ourselves employed mercenary troops as recently as the Crimean War.

So far as the two systems of maintenance are concerned, it is clear that continuous colour-service must make for solidity and homogeneity, and must favour the cultivation of *moral*.

Intermittent training, on the other hand, favours none of these military qualities. The "Militia Principle" is adhered to by the Argentine Republic, Chile, Denmark, Norway, Sweden, Switzerland, Belgium, the Netherlands, and by ourselves so far as touches the so-called Special Reserve units. The Militia of the United States of America may also be mentioned.

In many of these countries the principle is distrusted, in some efforts are being made to secure its removal, and the substitution of continuous service. Some consider it still sufficient for the strictly defensive strategical policies adopted. All recognize that such forces are incapable of undertaking offensive war or of coping with the organized troops of their powerful neighbours.

The great majority of the advocates of "Militia" training, or "Compulsory Training" base their arguments upon an easily demonstrable fallacy, to wit, upon the assumption that territorial defence can be assured by forces less highly trained, or less trained, than those charged with offensive action. Indeed, this fallacy itself contains yet another, *i.e.*, that mere defensive action can of itself be successful.

Such a system of maintenance is weakest when operating in conjunction with voluntary enlistment, for it obviously is not strengthened by association with a principle even weaker than

itself. The fact is that, at the present day, a militia force, voluntarily recruited, can appeal only to the less valuable, the least desirable, the least stable, of the population, who may regard its periodical paid trainings as a welcome addition to other sources of State relief, but who assuredly join such forces with little idea of rendering military service commensurate with the expenditure their training involves.

There is, then, little or nothing to commend the "Militia Principle" to a Power of the first rank, weighted with heavy and distant responsibilities.

## PART II.

### THE STRATEGICAL SITUATION OF THE UNITED KINGDOM.

No precise parallel to the strategical situation of the United Kingdom can be cited, nor does the situation to-day bear more than a remote resemblance to the conditions prevailing in times past. Little, then, can be gleaned from historical precedents.

The British Islands, composing the United Kingdom, include an area (over and above the Channel Islands) of 121,316 sq. miles, a population of roughly 45,000,000, and lie at the north-western angle of the European Continent, in a position peculiarly advantageous as regards climate and propinquity to principal trade routes, besides offering ready access for military forces to the important strategic points of Western Europe.

The population is far from being homogeneous, English (34,000,000), Welsh (2,000,000), Scotch (4,750,000), and Irish (4,500,000), presenting widely-different racial and social characteristics. Institutions, however, are generally similar, and there exists (at present) a common political organization. Each race possesses undeniable military qualities, which under the established military system are unsatisfactorily and unevenly utilized. Wealth, in proportion to area and population, is great, the annual revenue approximating to £180,000,000 Internal communications of all sorts are highly developed. Every condition favours sea-commerce and the development of sea-power. Wealth, however, depends increasingly upon importation of raw materials, and export of manufactured articles.

Far from being self-supporting, the major portion of food supplies is water-borne from distant centres of production.

Oversea possessions comprise vast territories in various stages of development, and include:—

1. In Europe, 119 square miles; population 232,000.
2. In India, 1,773,088 square miles; population, 295,000,000.

3. Other areas in Asia, 153,694 square miles; population 7,790,000.
4. In Australasia and the Pacific, 3,190,168 square miles; population 6,000,000.
5. In Africa (excluding Egypt and the Sudan), 2,203,915 square miles; population 34,000,000.
6. In America and the West Indies, 4,024,910 square miles; population 11,500,000.

In Europe, the British Islands lie in close proximity to the highly-organized territories of the most important military Powers.

In Asia and in America great Dependencies or Dominions lie in close proximity to Powers which, if politically energized, may rapidly become formidable military Powers.

In Africa (except Egypt), and in Australasia, aggression by organized neighbouring Powers is not, perhaps, a contingency of the immediate future. In Egypt and in the Sudan we have definite political and military commitments.

British "responsibilities," therefore, are both enormous and widely-diffused. The British Empire, having probably attained its maximum area, has for its primary political objective the retention, development, and consolidation of its resources.

This is essentially a defensive rather than an offensive policy. In conformity thereto, the national military policy of the United Kingdom is essentially defensive, aiming at (1), the safety of the British Islands, (2), the preservation of the component portions of the Empire, and of their internal order, and (3), preservation of a balance of power outside the British Empire.

When it is considered that British territories march with those of every first-class European Power other than Austria-Hungary, it will be realized that the possible zones of friction from European sources alone are both numerous and serious.

Economic rivalries and political jealousies are, perhaps, the most obvious, but certain ill-defined racial movements also menace the British Empire in varying degree. Chief amongst these movements appear to be:—

i. *Pan-Germanism,* involving aspirations towards a Germanic hegemony in Europe.
ii. *Pan-Islamism,* aiming at an Islamic hegemony in the Middle and Near East, in Northern and portions of Central Africa.
iii. *Asiatic regeneration,* with "Asia for the Asiatics" as its rallying cry, and Asiatic control of Eastern productive capacity, of Eastern politics, and of the Western Pacific, as its immediate objectives.

These are essentially offensive policies. Germanic aggression threatens to upset the balance of power in Europe, forcing Powers now friendly or neutral into an alliance hostile to our

interests, to menace directly our sea supremacy by absorption of maritime minor States, and to confront us with the capital risk of conquest-by-invasion.

Pan-Islamism threatens us with the development upon hostile lines of territories bordering upon our shortest routes to India and the East, with internal troubles in and near our Mahomedan Dependencies, with direct opposition to our occupation of Egypt and the Sudan.

Asiatic regeneration menaces our hold upon India, the Straits Settlements, and Hong Kong, our maritime interests in the Pacific, and may, in some more distant future, assail both Australia and the western seaboard of Canada.

We have, moreover, to reckon with the magnetic attraction that India must exert upon Russia, the consequences of the rapid Americanization of Central Canada, and the possibility of revolutionary upheavals at home. Such are our responsibilities.

If, for the purpose of meeting these responsibilities, the United Kingdom is compelled to seek exterior assistance, this must take the form of ready-organized, highly organized, and instantly available military co-operation. No other form of assistance need be considered.

So far, however, as European or "serious" warfare is in question, no one of our overseas Dependencies is capable of rendering this assistance, nor is there any prospect of its being forthcoming within the next generation, by which time the crisis will surely have passed, and the Empire will have been either consolidated or dissipated.

Unfortunately, the entire conditions of the overseas Dominions are opposed to the attainment of true military efficiency, which is a growth of highly organized communities. The energies of their comparatively small and scattered populations are absorbed in rapid economic progress. Forms of Government are largely experimental. Constant immigration from many lands involves a heterogeneity of race. Discipline of all kinds is disliked. As yet there is little or nothing to inculcate a sense of military danger. Such dangers as are recognized do not menace the several Dominions in equal degree. As a result, anti-military prejudice is strong. Military organization is usually confined to the provision of land forces sufficient, perhaps, for the maintenance of internal order and for initial resistance to exterior aggression, but relatively inferior in training equipment and skilled leadership. There is little inclination to undertake the huge financial burdens inseparable from any efforts in the direction of attaining sea power.

The military progress recently made by Australia and New Zealand is, of course, considerable, nevertheless the forces provided, both naval and land forces, can for long possess only a defensive capacity, and cannot be regarded as avail-

able for general Imperial purposes, certainly not for action in Europe.

This defensive *rôle* promises, of course, to reduce very materially the gross burden of our Imperial responsibilities, particularly in certain eventualities, and should discourage the systematic strategic approach, which is what Australasia has most to fear at present from the only Power that is in a position to encroach in that quarter.

Ultimately, each and all are dependent upon the direct assistance of forces recruited within the United Kingdom, which alone of all the territories of the Empire is capable of furnishing white man-power in large quantities and in organized strategically-mobile formations.

For all purposes of consolidation and development, as well as for all intercourse with other States, and for all trading with foreign markets, The Empire depends upon free passage by the way of the sea. So vital is this freedom of passage to the United Kingdom that total cessation of its sea-borne commerce would reduce its inhabitants to starvation in from three to four weeks.

We strive for command of the sea, therefore, purely and simply in the first instance as a measure of self-defence.

Sea-mastery, however, is equally essential to all our military operations (save resistance to accomplished invasion), whether these be essentially defensive or essentially offensive. Sea-mastery, in short, cannot in itself be a strategical end. Rather is it the means to all our strategical ends. No one of these ends can be attained by sea power alone. Indeed, for all purposes of action at great distances from highly-organized naval bases the efficacy of fleets has diminished rather than increased since—for example—the time of Nelson.

The industrial activities of great Continental States, sited deep inland, can be assailed by naval action only in so far as they depend upon sea-borne imports and exports which cannot reach their destinations overland. We cannot regard the sea-borne commerce of our Continental rivals as a prime objective, such as our sea-borne commerce is to them. On the other hand, the Napoleonic conception of a "Continental system," stopping our flows of food supply and raw material at their Continental origins, and refusing admittance to our manufactures at Continental ports of destination, is a weapon more dangerous to us than ever before, and one that calls for only secondary naval action against us.

Such a weapon can be beaten down only by amphibious effort on our part, but in this connection little that is relevant to prêsent conditions can be learned from our previous endeavours in this direction. In our principal wars of the past we did, in truth, recognize the necessity of acting amphibiously, but we were enabled to rely mainly, as regards land power, upon the subsidized armies of our Allies. Our own land effort was never commensurate with either our sea effort, our population,

our resources, or our responsibilities. We waged these wars on a system, so far as we were concerned, of strictly limited liability. We have, indeed, no experience of "serious" war, never having been compelled to resist invasion, and never having undertaken invasion save as a numerically-unimportant Ally.

Our historical procedure was successful so far as it went, because money and armaments, which we could freely spare, were at the moment the things chiefly necessary to our Allies, who were sufficiently equipped as regards man-power.

To-day it is *men*, not money or armaments, that our possible Allies lack, and it is man-power that we must contribute if these same Allies are not to be forced into hostile coalitions which they themselves detest.

Formerly, when we were thus content to be sea-strong and land-weak, we were enabled to effect quite considerable results by the application of minor land forces. Our Continental enemy was always harassed by our subsidized Allies, hampered by poverty of land communications, and was unable to cope with us in the open at sea.

In future, our Continental Allies cannot hope to withstand the land-shock of the common enemy unaided by us, communications of all sorts are perfected, and the opponent will, like ourselves, act amphibiously with sea power formidable enough to command respect.

It is futile to debate whether an invasion of the British Islands is possible or the reverse, to imagine arbitrary restrictions to the magnitude of a raid, or in any way to foretell the future. The only solid basis of reasoning is, that, given a Nation-in-arms for our opponent, his numerical strength is limited only by the aggregate numbers of his trained troops, which in its turn is limited only by his financial situation and his population. We cannot presume to place limitations upon his use of those numbers.

If we aspire to regulate the balance of European power in a sense favourable to ourselves, it is as an amphibious Nation-in-arms that we must enter the lists. Only by a full employment of our man-power can we hope to do so with chances of success.

It is tolerably certain that loss of one of our oversea Dominions would not of necessity, and in itself, involve the ruin of the British Empire as a whole. But paralysis of the United Kingdom, brought about by failure to preserve the balance of power in Europe, which would result in either (i) actual invasion, or (ii) slow strangulation by the application of a "Continental system," or (iii) such loss of sea power as would render the land forces of the United Kingdom strategically immobile, would assuredly have that effect.

This, then, is our primary strategical objective, an objective which, since the overthrow of Napoleon, has been to us merely an attractive theme for academic discussion. It overshadows

all other objectives. In short, the "safety of the United Kingdom on land" cannot be considered as a proposition apart from "maintenance of the balance of power in Europe." The greater includes the less, and the military system which can ensure the latter will *ipso facto* ensure the former. It will also, with reasonable application, ensure "the defence of the Empire." It is needless and unsound to maintain separate military systems, and separate categories of troops, for the three eventualities.

Attempts to do so must result in immobility of man-power, and have so resulted, with the consequence that we can now initiate no political or military enterprise; we are thrown wholly on the defensive, and have lost influence and prestige to an extent which can scarcely fail to invite further aggression.

It is not alone in regard to our dependence upon sea-communications that our strategic situation is peculiar. No other State, faced by the capital necessities of preparing for an offensive war of the first order, or of preparing to resist invasion, would permit itself to contemplate secondary military enterprises.

We, however, owing to the multitude, divergence, and geographical distance of our Imperial responsibilities, which compare very significantly with the concentrated simplicity of the tasks falling to our principal European rival, may find ourselves compelled at any moment, however inconvenient, to embark upon some savage, Indian, or Colonial campaign of serious proportions. This disadvantageous situation is apparent from the course of recent world-politics. Both by sea and by land we have been obliged to adopt a policy of concentration in and about the United Kingdom. This inevitable concentration has involved certain perils in connection with both the Pan-Islamic and the Asiatic movements, has compelled our virtual withdrawal from the Pacific, and has greatly reduced our strength in the Western Atlantic. To lighten these burdens we have been obliged to enter upon a definite Alliance with the greatest Eastern Power, which has exasperated our European ill-wishers, to seek a *rapprochment* with the United States, with whom we have few common interests other than those of sentiment, and to attempt, apparently in vain, to recover some of our lost influence at Constantinople.

Assuming the highest possible degree of value for these efforts, it is still plain that our military power is wholly insufficient for the pursuit of our primary objective.

It is plain, too, that the deficiency lies in our land forces, which are numerically insignificant, and include an undue proportion of strategically-immobile elements, ear-marked for resistance to invasion, but in point of fact the least fitted of all to cope with that supreme eventuality.

No British Government could, in the present condition of things, permit our so-called Expeditionary Forces to quit our

shores in the absence of the fleet. Nor could any Government permit our fleet to embark upon a distant enterprise, should the Expeditionary Forces be likewise employed at the same moment. Nominally provided with two legs to stand upon and progress with, we can never contemplate using more than one at a time.

This condition is rendered possible, and its continuity is assured, by adherence to the principles of voluntary military service, under whose protecting *ægis* all military truth is hidden from the nation.

## PART III.

### STRATEGICAL CONDITIONS GOVERNING THE EMPLOYMENT OF OUR FORCES.

The strategical situation of the United Kingdom is, as has been mentioned, in many respects peculiar. This peculiarity of situation, however, does not involve corresponding peculiarities so far as the *employment* of our forces is concerned. The contrary is frequently alleged by defenders of our present impossible military system, which is supposed by its impassioned advocates to be especially competent to cope with peculiarities, and to exhibit a most desirable elasticity.

The first true peculiarity arises from the fact that, as an Insular Power, we are dependent upon sea-mastery for all strategic liberty of action. Japan, as the only other first-class Insular Power, is likewise dependent upon sea-mastery, but her military system is that perfected in Germany, and her land forces are organized and trained upon the lines obtaining throughout Continental Europe.

The second peculiarity arises out of the first, viz., that all our great wars, and most of our smaller wars too, must needs be waged amphibiously. But the great Continental States have also realized the potentialities of amphibious war, and practice it assiduously during peace. Germany, Austria-Hungary, and Italy make a special feature of it, and Italy, at the moment of writing, is engaged upon an amphibious war that may yet become "great."

Fleets, like the cavalry arm, are too expensive not to be used to the uttermost. Indeed, it is probably correct to assume that *all* civilized warfare of the future will be amphibious. We, at any rate, can have no monopoly in it. In short, amphibious warfare has ceased to be a peculiarity.

Again, it is obvious that for extra-territorial warfare, our land forces, proceeding from the United Kingdom, or from any other portion of the Empire, must needs be conveyed to the theatre of operations in ships. Essentially, however, there is no difference between transport by ship and transport by rail. In either case the communications must be safeguarded. In

the one case safety is guaranteed by naval forces, in the other by land forces, occasionally by both. Here is no real peculiarity, certainly none which can effect the basis of the military system, which supplies only the man-power transported.

Transport by sea is no longer a mysterious process, nor is it in itself more hazardous than transport by rail. It is, however, more convenient, more elastic, and vastly cheaper, besides lending itself to strategic surprise in a way no other form of transport can do.

So far as regards the character of the opposition we may have to encounter, it is only in purely savage or Colonial campaigns that real peculiarities are evident. Maturity of *personnel* and acquaintance with the characteristic methods of the opponent are here the great *desiderata,* and if voluntarily-enlisted *personnel* is best for this limited purpose, it is solely because this maturity and experience are presumably more readily realized by troops so enlisted.

Moreover, with constantly increasing reliance upon fire-action, the erstwhile characteristic methods of most savages tend to become less marked.

In all other cases, whether we are opposed to a Continental adversary, within or without the limits of Europe, to Turkey in the Middle East, to Russia on the Indian frontier, to Japan or China in the Far East, Western Canada, or Australasia, to the United States on the shores of the great Lakes, the methods opposed to us will be those of Western Europe, and only the environment will vary.

Varying environment may call for modification in transport, supply, equipment, and alimentation. Strategy may be cramped or its scope enlarged, but there can be no inherent peculiarity calling for special recruiting methods. Contrariwise, each of the eventualities above mentioned would necessitate the employment of land forces far in excess of those which our voluntary system could furnish.

If then it be true that a compulsory-service Army would refuse to fight at distances so great from the Motherland, or that national opinion would not tolerate the idea, or that the Army would fight so badly as to contain within itself the germs of defeat, all our pretensions to Empire must go by the board. And not merely our pretensions only, but those of all the great Colonizing Powers besides.

Fortunately there is no reason to suppose that there is any truth whatever in such suggestions, which imply that whereas a compulsory-service *personnel* will depart cheerfully for hostile territory in a train, it will refuse to do so in a steamer.

The fact that we cannot now maintain our title to absolute sea-mastery, so far from marking a peculiar strategic situation, or involving peculiar methods of employment, merely tends to bring our strategic situation into line with that of rivals over whom we once enjoyed a definite initial advantage, to *eliminate*

peculiarities, and to impose upon us the necessity of installing a military system as efficient as their own.

There remains the matter of invasion. The United Kingdom embraces a small area, and its principal strategic points lie of necessity in close proximity to each other and to the coast. This being so, any invasion of the British Islands could and would be decided rapidly, and by a relatively small invading Army, if this were enabled to seize and hold a few of the chief nerve-centres. There are no remote districts in which defending forces could concentrate at leisure.

The smallness of the area, too, favours the co-operation of an invading Army with its fleet, both as regards seizure of inland nerve-centres, and indirect reduction of our sea-power. Our Home naval bases, for example, would be in a parlous condition if invested by land and sea. They would be in nearly as parlous condition if attacked from the sea and isolated from the centres of steel, fuel, and ammunition production by more distant invading forces.

The smallness of the area, too, renders the time-element of peculiar importance as regards defensive action, and as regards such operations of war as the demolition of railroad communications. Such demolitions would be more effective within the United Kingdom than in wider theatres.

Again, any successful invasion must be presumed to isolate considerable areas very soon after its accomplishment, paralysing mobilization, concentration, and concerted action.

Here are true peculiarities, which, however, call for special measures of preparedness, and an elasticity of plans for defence, rather than for a special recruiting basis.

To some extent these invasion conditions resemble those hitherto prevailing upon the western frontiers of Russia, where, but for a different reason, namely, paucity of rearward rail communications, *mobilization for defence* was frankly regarded as impossible, and units were maintained practically at war establishment.

We maintain a considerable Army of Occupation in India, minor forces in certain convenient "half-way-houses" on our principal lines of sea-communication. Many of these elements are *sedentary,* many that are not sedentary are non-mobile for reasons that will be stated.

There is an extreme probability that danger in Europe will synchronize with disturbances in India, or in certain of our Dependencies. This fact alone is sufficient to impress upon us that none of our overseas garrisons can be safely regarded as strategically mobile.

Malta, for example, though a thoroughly bad training ground for mobile troops, is conveniently situated with regard to Egypt, but it would be highly dangerous to rely upon reinforcing our Army of Occupation in Egypt from Malta, because, if Egypt were endangered Malta would *ipso facto* be endangered also. As a World Power, we are on the

defensive, and difficulties occasioned by one rival may afford another rival an opportunity which will assuredly be seized. If this be not at present generally recognized, it very soon will be.

Similarly, South Africa (an incomparable training ground in all save cost of maintenance) is, strategically, an admirable "half-way-house" to India. But in our changed strategic conditions if we are to rely upon re-inforcing India from South Africa, we shall be compelled to maintain troops in South Africa for that express purpose, over and above all internal requirements of South Africa itself.

Nor is it safe to trust to the ability of India to spare troops for detachment elsewhere. In the words of a celebrated Irish County Court Judge, we must in future consider every herring as hanging by its own tail. The reservoir whence all exceptional exterior requirements must be drawn is the United Kingdom, and that alone.

In this there is involved the necessity of departure from previously-accepted strategical policy. We no longer occupy a position of peculiar immunity or peculiar advantage. We revert to our true status of a Power that is primarily European, and secondarily "Colonizing," and we are compelled to regard our responsibilities as a Continental Power must regard its own, as the denominator in the ratio whose numerator is man-power, man-power produced and organized in the Motherland.

## PART IV.

### THE SUGGESTED MILITARY SYSTEM.

WE have now attempted to demonstrate four facts, *viz.*:—

(1) THAT MAN-POWER IS THE ESSENTIAL AIM OF ALL MILITARY ORGANIZATION.

(2) THAT THE MAXIMUM POSSIBLE VALUE FOR THE RATIO "MAN-POWER TO RESPONSIBILITIES" IS NECESSARY IN THE CASE OF A GREAT AND WEALTHY POWER.

(3) THAT NO APPROACH TO THIS MAXIMUM IS ATTAINABLE SAVE UNDER A MILITARY SYSTEM BASED EITHER ON UNIVERSAL SERVICE, OR UNIVERSAL LIABILITY TO CONSCRIPTION.

(4) THAT THE RESPONSIBILITIES OF THE UNITED KINGDOM ARE ENORMOUS.

Assuming that this attempted demonstration carries conviction, it is permissible to deduce that the United Kingdom must elect for one or other of the principles mentioned in (3) above.

Conscription we will reject without more ado, as being militarily unsatisfactory and politically undesirable.

Universal compulsion to service in a militia army, sometimes disguised under the name of "compulsory training," we will reject by reason of its military inefficiency and its inapplicability to our strategic situation.

It remains to sketch the outline of a military system, based upon universal service, which shall provide for our admitted peculiarities. These latter may be summarized as follows:—

(i) COMPLETE DEPENDENCE UPON SEA-POWER FOR LIBERTY OF STRATEGIC ACTION.

(ii) IMPOSSIBILITY OF RELYING UPON OVERSEA DOMINIONS FOR MORE THAN LOCAL DEFENCE.

(iii) A GROSS BURDEN OF RESPONSIBILITIES UNPARALLELED IN HISTORY, EITHER IN REGARD TO MAGNITUDE OR DIFFUSION.

(iv) THE PRACTICAL CERTAINTY THAT WE CANNOT RELY UPON PURSUING OUR PRIME STRATEGICAL OBJECTIVES UNHAMPERED BY SERIOUS SECONDARY PRE-OCCUPATIONS.

The installation of such a system must be intimately bound up with divers social and political complexities, and the mere proposal is certain to excite opposition. With the problems attending the resolution of these complexities and the pacifying of political opposition no military officer is concerned. For the purposes of this Essay they will be ignored.

Profound actuarial calculations will not be attempted, and only the barest necessary statistics will be given, for the sufficient reason that, failing access to the accumulated lore of several Government Departments, there can be no pretence to minute accuracy. Nor, indeed, will even considerable errors in estimation affect the validity of the arguments, since within the prescribed limits the subject can be treated only upon broad lines.

The financial aspect will attain its full importance once the matter reaches the domain of practical politics. In the meantime it is sufficient to assert that in view of the wealth and population of the United Kingdom, and the present vast expenditure upon social reforms, all of which would be rendered nugatory by military defeat, no serious person can contend that the financial barrier is unsurmountable.

One very curious fact will become apparent when a close investigation of our resources is undertaken, namely, that assuming the actuality of universal compulsion, the yield of a British annual recruiting contingent would exceed by very little (if there were any excess at all) the quota required to maintain the number of units, Regular, Special Reserve, and Territorial, at present provided for in Army Estimates.

So long ago as the assembly of the Royal Commission on the South African War this little-appreciated conclusion was reached (though naturally it must have been known considerably before that time to the responsible officers of the War Office), as will be seen from the following extract from Lord Lansdowne's Memorandum, printed at page 253, Appendix D., of the Report:—

". . . . The number of males in these Islands who arrive annually at the age at which recruits usually enter the Army (18 years) is about 400,000. From these must be deducted, for the purposes of the argument, those who

are physically unfit, and those whose station in life precludes them from serving (*sic*). Of the remainder, there are taken every year:—

| | | |
|---|---|---|
| By the Regular Army ... ... ... | about | 30,000 |
| ,, Militia ... ... ... ... | ,, | 35,000 |
| ,, Yeomanry and Volunteers ... | ,, | 42,000 |
| ,, Navy ... ... ... ... | ,, | 15,000 |
| Total ... ... ... | | 122,000 |

Making every allowance for double entries, it is clear that we are severely taxing the recruiting capacity of the country."

Precisely so, but were universal compulsion applied to that same recruiting capacity, the consequences would be:—

(i) That no " station in life " could preclude from entry.

(ii) That in lieu of the mass of unfit *personnel* thus compulsorily accepted, the quota would represent the flower of the national manhood.

(iii) That the units in which the recruits were incorporated would be truly efficient, homogeneous, and strategically mobile.

(iv) That ample Reserve Formations of fully-trained troops would be automatically created.

And this, be it noted, without altering the total very materially! In fine, the compulsory system would reject a high proportion of what the so-called voluntary system must compulsorily accept and would tap social strata inaccessible to voluntary enlistment.

Putting numerical estimates aside for the moment, the guiding principles which we shall endeavour to keep in mind in sketching the proposed system are:—

(i) To secure the maximum strategic mobility of all forces.

(ii) To focus attention primarily upon the Active Army and the formations expressly organized for its support and expansion.

(iii) To prescribe such adequate periods of colour-service and reserve training as will ensure genuine solidity and homogeneity.

(iv) To differentiate clearly between combatant and non-combatant, field and sedentary elements, in order that each may be recruited from appropriate sources, and maintained upon the most economical basis.

(v) To ensure economical maintenance and administration.

In respect of the Navy, it appears probable that a steadily-increasing establishment will call in the near future for adoption of this same principle of compulsory service, though, naturally, the Navy will prefer to adhere as long as possible, and as far as possible, to the early voluntary enlistments, long service, and the other characteristics which in the past have made for its supremacy.

Change, however, is inevitable, nor need this particular change occasion dismay, in view of the altered conditions of

life, service, and training, now obtaining. Whether we like it or not, our Navy will tend to become more and more a "military navy," our sailors to resemble "naval troops" rather than "seamen."

It will therefore be assumed that the navy will require a certain annual quota from the Recruit Contingent.

So far as the land forces are concerned, the following skeleton organization appears to ensure adherence to the principles laid down :—

A. SPECIALIZED FORTRESS (SEDENTARY) TROOPS, with no illusory pretences to either strategic or tactical mobility, for the maintenance of both Home and Overseas fortresses, naval bases, and coaling stations, service in which is ruinous to the efficiency of field troops.

B. FORCES OF OCCUPATION in India and in such Dependencies as are necessarily held by elements recruited within the United Kingdom, adequate in establishment to all immediately probable necessities, interior and exterior, but not regarded as available for employment save in defence of the Dependency in which they are stationed.

C. A STRIKING FORCE (this term being used for want of a better) maintained within the United Kingdom in such a condition that it is available for embarkation at the shortest notice.

D. A GUARDS DIVISION for the performance of the special duties incumbent upon such troops.

E. A METROPOLITAN ARMY, whose active and reserve elements are alike constitutionally available for all eventualities, interior and exterior. The Metropolitan Army to be in all respects as efficient as the foregoing branches, from which it will differ merely in respect of age and maturity of *personnel*, and details of peace establishment.

The characteristics desirable in a STRIKING FORCE are maturity of *personnel*, constant readiness for action, and high peace establishment. These very characteristics indicate a secondary *rôle*, which should be undertaken by the Active Units of such a force during peace, or when in war the initiative and the overseas offensive is for any reason impossible, and by the Reserve elements of the same force when overseas action has been undertaken. This *rôle* is Home Defence, for which we are at present content to ear-mark the least-trained, least highly-organized, least fitted, of our Forces.

In regard to details of recruiting, maintenance, periods of colour and reserve service, etc., the following suggestions have been devised with a view to securing adherence to the guiding principles laid down, and furthermore dispelling illusory reliance upon reserve elements necessarily composed of a *personnel* long absent from active military duty, in other words with a view to

increasing the proportion of Active to Reserve *personnel* hitherto accepted. A movement in this direction has been rendered necessary by the changed character of warfare in general, and its necessity is recognized by all the great Continental Military Powers.

1. STATISTICAL AND RECRUITING MACHINERY, previous to the act of enlistment or incorporation, to be the concern of the Home Office.
2. PREPARATORY TRAINING to be obligatory in all Elementary and Secondary schools. (a) *Junior Cadet Corps*, age 14-16, to be controlled by the Educational Authority. (b) *Senior Cadet Corps*, age 16—age of enlistment or incorporation, to be controlled by the Educational Authority in respect of maintenance, by the Military Authority in respect of organization and instruction. Stage (a) to include elementary gymnastic and physical instruction not involving the use of arms. Stage (b) to include drill and the theory and practice of arms, including musketry.
3. NOMINAL LEGAL LIABILITY to commence at age of 18, when the youths would come directly under the cognisance of the Military Authority.
4. INCORPORATION in the Army or in the Navy to take place normally at the commencement of the 20th year. Exemptions, postponements, etc., to be those usually recognized in Continental practice in the case of clerical aspirants, students, residents abroad, sole supporters of families, and the like.
5. VOLUNTARY ENGAGEMENTS to be encouraged both for Army and Navy, but no Army volunteer recruit to be accepted under the age of 19. The normal period of engagement in the Army to be for five years colour service.
6. CRIMINAL CONVICTIONS followed by sentences of imprisonment exceeding six months, or of penal servitude, to involve definite exclusion from the military services, with loss of all Government sickness or unemployment benefits, and ineligibility for Old Age Pensions.

The necessary deductions having been made, the remainder of the Annual Recruit Contingent to be classified as under:—

CATEGORY A. Recruits of perfect physique and possessing satisfactory educational certificates.
CATEGORY B. Recruits of perfect physique, but possessing only mediocre educational certificates.
CATEGORY C. Recruits of perfect physique, but illiterate.
CATEGORY D. Recruits of less perfect physique, but possessing satisfactory educational certificates.
CATEGORY E. Recruits of imperfect physique, irrespective of educational attainments.

The active combatant forces would be recruited primarily from Categories A. B. and C., the requirements of the Guards Division, Striking Force, and Fortress Troops, being first completed, the individuals being posted to arms and services corresponding with their educational attainments.

Recruits of Category D. would normally be posted only to non-combatant arms and services, but would be available if required to complete any deficit in Categories A. B. and C.

Recruits of Category E. would be postponed to the following year, when if again rejected, they would be finally excluded.

Any balance of accepted recruits, or any desired portion of that balance, would receive three months continuous training in an Active Unit, and then be relegated direct to the Second Reserve.

Naval recruits to be selected as far as possible by personal choice.

One-year volunteers to be accepted from Categories A. and D. only. Those from Category D. to be eligible only for service in non-combatant formations.

**The Metropolitan Army.**

THE METROPOLITAN ARMY to include the following elements:—

(a) THE ACTIVE ARMY.—Periods of colour service, three years for mounted, two years for dismounted branches.

(b) THE FIRST RESERVE (M. A.).—Periods of service, seven years for mounted, eight years for dismounted branches. Annual training one week.

(c) THE SECOND RESERVE (M.A.).—Periods of service, five years for trained men passed from First Reserve, or to age 35 for accepted recruits not incorporated in the Active Army. A training of three days and a muster in alternate years.

(d) THE THIRD RESERVE (M.A.).—Period of service, to age 40. No training, but an annual muster, and liability to service as an armed Reserve Police Force, as well as to recall to the colours.

Both the First and Second Reserves (M.A.) to be liable to service in Striking Force units in the event of national emergency.

RATES OF PAY for rank-and-file to be as under:—

(a) In Active Units, based upon a clear net payment to the private soldier of sixpence per day.

(b) In First Reserve (M.A.), *do. do.* of threepence per day, with full active pay and travelling expenses for annual training.

(c) In Second Reserve (M.A.), Active pay and travelling expenses for training and musters only.

(d) In Third Reserve (M.A.), Active pay and travelling expenses for days of muster only. Pay at full Civil Police rates when so employed.

RE-ENGAGEMENTS with bonus and increased pay to be permitted in Active mounted units for two consecutive periods of three and two years; in Active dismounted units (for selected N.C.O.'s only) for two consecutive periods of four years, in each case with corresponding reduction of Reserve service.

Transfers to the Striking Force to be permitted at any time after completion of nine months training. To FORTRESS TROOPS or GUARDS DIVISION on completion of colour service only.

A SMALL MARRIED ESTABLISHMENT to be recognized for senior N.C.O.'s only.

RATES OF PAY of Metropolitan Forces to be assimilated to those obtaining in the Striking Force, when the two formations are employed together on active military service oversea.

**The Striking Force.**

THE STRIKING FORCE, linked organically with the FORCES OF OCCUPATION oversea, and supplying the latter with drafts of matured *personnel* during peace, besides supporting (and if necessary expanding) these oversea forces during war, to comprise:—

(a) THE ACTIVE FORCE, recruited from the resources of the United Kingdom at large (i) by direct voluntary engagement (ii) by voluntary transfer from the Active Metropolitan Army (iii) in so far as such engagements may fail, by direct incorporation from the annual recruit contingent. Periods of colour-service, for all arms and branches, as under:—

| | |
|---|---|
| (1) For recruits voluntarily enlisted, or compulsorily incorporated. | Preliminary training at home, 2 years.<br>Service in Oversea Forces, 5 years.<br>In First Res. (S.F.), 3 years.<br>In Second do., 3 years.<br>In Third do., to age 40. |
| (2) For trained men voluntarily transferred from the Metropolitan Army. | Preliminary service at home, 1 year.<br>Service in Oversea Forces, 6 years.<br>On furlough with full pay 6 months.<br>In First Res. (S.F.), 3 years.<br>In Second do., 4 years.<br>In Third do., to age 40. |

VOLUNTARY RE-ENGAGEMENTS, with furlough and bonus, to complete a total period of ten years colour-service, to be permitted. Reserve service to be reduced accordingly.

VOLUNTARY TRANSFER to FORTRESS TROOPS or GUARDS DIVISION to be permitted, on completion of seven years colour-service, including the term of service oversea.

RATES OF PAY for rank-and-file to be as under:—

(a) In Active units, based upon a clear net payment to the private soldier of one shilling per day. Additional Overseas Allowances to be based upon the climatic and general conditions of the overseas station.

(b) In First Reserve (S.F.), do. do. of sixpence per day.
(c) In Second Reserve (S.F.), do. do. of fourpence per day.
(d) In Third Reserve (S.F.), do. do. of threepence per day.

PERIODS OF RESERVE TRAINING to be similar to those enforced in the Metropolitan Army.

On transfer to First Reserve (S.F.), men of approved character to be eligible for Government employment in Police Forces, the Post Office, Local Government Staffs, Excise, etc., also in railway companies, statutory provision being made for the allotment of an annually specified proportion of vacancies.

On mobilization, men of the Third Reserve (S.F.) to take over the public situations and appointments of First Reservists recalled to the colours, the balance being available for employment in an armed Police Reserve, or for recall to the colours.

### The Guards Division.

THE GUARDS DIVISION, of all arms, to comprise:—

(a) ACTIVE UNITS, (b) FIRST, SECOND, and THIRD RESERVES. The Active units to be recruited (i) by direct voluntary engagement (ii) by voluntary transfer from the Active Metropolitan Army or Striking Force (iii) in so far as such engagements may fail, by direct incorporation from the Annual Recruiting Contingent. Periods of service, for all arms, to be as under:—

| | |
|---|---|
| (1) For recruits voluntarily enlisted, or compulsorily incorporated. | Colour service, 7 years.<br>In First Res. (G.D.), 3 years.<br>In Second do., 3 years.<br>In Third do., to age 40. |
| (2) For trained men voluntarily transferred from the Metropolitan Army or the Striking Force. | Colour service, to age 30.<br>In First Res. (G.D.), to age 34.<br>In Second do., to age 37.<br>In Third do., to age 40. |

PERIODS OF RESERVE TRAINING, VOLUNTARY RE-ENGAGEMENTS, ELIGIBLE FOR CIVIL EMPLOYMENT, etc., as for the Striking Force.

RATES OF PAY for rank-and-file, as for the Striking Force, *plus* 25 per cent. as Guards pay.

### The Fortress Troops.

THE FORTRESS TROOPS, to comprise (1) Fortress Artillery (2) Fortress Engineers (3) Fortress Infantry (4) Ordnance Services (5) Cyclist units, in (a) ACTIVE UNITS, (b) FIRST and SECOND RESERVES (F.T.), and to be recruited primarily by voluntary

transfers (irrespective of arm or branch) of time-expired *personnel* from the Metropolitan Army, Striking Force, or the Overseas Forces of Occupation, (ii) by direct voluntary enlistment, (iii) in so far as these sources may fail by direct incorporation from the Annual Recruiting Contingent.

THE ACTIVE UNITS to be divided into a Home Establishment, and an OVERSEAS ESTABLISHMENT, corresponding to the (Home) Striking Force and the Overseas Forces of Occupation.

PERIODS OF SERVICE, etc., to be as under:—

| | |
|---|---|
| (1) For recruits voluntarily enlisted or compulsorily incorporated. | Preliminary training in the Home Establishment, 3 years.<br>Service in Oversea Establishment, 5 years.<br>On furlough with full pay, 4 months.<br>In First Res. (F.T.), to age 35.<br>In Second do., to age 40. |
| (2) For men voluntarily transferred from the Metropolitan Army. | In Home Establishment, 1 year.<br>In Oversea Estab., 4 years.<br>In First Res. (F.T.), to age 35.<br>In Second do., to age 40. |
| (3) For men voluntarily transferred from the Striking Force or Forces of Occupation. | Service in either Home or Oversea Establishment, 4 years.<br>In First Res. (F.T.), to age 35.<br>In Second do., to age 40. |

VOLUNTARY RE-ENGAGEMENTS, with bonus (if originally voluntarily enlisted or compulsorily incorporated), for two consecutive periods of three years. If otherwise recruited, for two consecutive periods of two years.

PERIODS OF RESERVE TRAINING, RATES OF PAY, etc., to be the same as those prescribed for the Striking Force and Overseas Forces of Occupation, respectively.

**Organization of the Field Army.**

In regard to outlines of organization, the highest organized unit would be, for cavalry the brigade, for infantry the division, with in each case the requisite auxiliary arms and services.

For Reserve formations, the mixed brigade would be recognized.

The normal *ordre de bataille* would be:—

(i) *The Cavalry Brigade* (*Guards Division, Metropolitan Army, or Striking Force*).
Headquarters and Motor Section.
Three Cavalry Regiments, of four squadrons.
One Brigade R.H.A.
One Field Troop, R.E.
One Signal Section, etc.

(ii) *The Division (Metropolitan Army or Striking Force).*

Headquarters and Motor Section.
Three Infantry Brigades, of four battalions.
H-Q. R.A.
Three Brigades R.F.A. (gun batteries).
One Brigade R.F.A. (Howitzer).
One Brigade R.F.A. (Heavy).
One brigade (2 batteries) Mountain Artillery.
H-Q. R.E.
One Aeroplane Section.
Three Field Companies R.E.
One Signal Company, etc.

(iii) *The Mixed Reserve Brigade.*

Headquarters and Motor Section.
One Reserve Cavalry Regiment of two squadrons.
One Reserve Infantry Brigade, of four battalions.
One Reserve Brigade R.F.A. (gun or howitzer).
One Reserve Field Company R.E.
One Signal Section, etc.

The Metropolitan Division and Cavalry Brigade would be strictly territorialized, and the units would not ordinarily change stations during peace. The Striking Force Divisions and Cavalry Brigades would not be so territorialized, and would change stations during peace as might be found desirable. Being maintained practically at war establishment, Striking Force units would require but small complements to effect mobilization. The necessary organization for this purpose would be installed in the requisite number of Metropolitan Divisional Areas.

THE TYPICAL METROPOLITAN DIVISIONAL AREA would mobilize:—

(1) An Active Metropolitan Cavalry Brigade.
(2) An Active Metropolitan Division.
(3) The mobilization complement of its affiliated Striking Force units.
(4) A Mixed Metropolitan Reserve Brigade.
(5) A Mixed Striking Force Reserve Brigade.
(6) A quota of Fortress Troops Reserve.
(7) An armed Police Reserve unit.
(8) Successive Mixed Reserve Brigades, as required.

*Cadres* for (4) and (5), also for an extra Mixed Reserve Brigade of each category, would be maintained during peace.

On mobilization for a campaign in Europe the procedure would be as follows:—

(1.) The requisite number of Active Striking Force Divisions completed to full war establishment, would be at once embarked, and transported to their ports of destination so soon as the fleet could assure free passage.

(2.) Simultaneously, an equal number of Mixed Striking Force Reserve Brigades would be mobilized, and moved to replace the Divisions (S.F.) embarked.

(In view of the fact that embarkation for an oversea theatre implies seizure of the initiative and naval superiority, it is reasonable to suppose that a Brigade can justifiably replace a Division for purposes of home defence).

These Reserve Brigades would supply drafts to the Striking Force Active units oversea.

(3.) Armed Police Reserve units would be mobilized, and would assume police control of the principal centres of population, the principal communications, etc., and would facilitate requisitioning, and collection of subsidized horses and transport.

(4.) Under cover of the foregoing dispositions, the Metropolitan Active Divisions would be mobilized, and embarked according to circumstances.

(5.) Simultaneously, mixed Metropolitan Reserve Brigades would be mobilized, and embarked for duty upon the Communications of the Field Army, and as Forces of Occupation.

(6.) One or more mixed Reserve Brigades (M.A.) would be mobilized in each Divisional area for the training of drafts for the Metropolitan units of the Field Army, supplementing the S.F. Reserve Brigades in this respect.

Thus the Active Field Army would be entirely constituted of Active units at the outset, Reserve formations being restricted to auxiliary duties. Home defence would be assured by fully-trained troops, whilst *all personnel* would be available for the support, and if necessary, for the expansion of the Field Army, without any necessity for re-engagements or reorganization.

For a Colonial or savage war, the necessary number of Striking Force Divisions would be completed and embarked, their stations being occupied by mobilized Mixed Reserve Brigades (S.F.), backed (if considered desirable) by mobilization of a portion of the Metropolitan Army.

For resistance to sudden attempted raid or invasion, the ever-ready Striking Force Divisions would be at once available, and would cover either general or partial mobilization.

Divisional areas isolated by an initially successful invasion would proceed to mobilization, concentration, and action, under the Divisional Commander, independently of any pre-conceived plans, until effective superior control could be regained.

The theoretical advantages of such a system are apparent. It is now necessary to attempt a forecast as to the probable yield of an Annual Recruit Contingent.

Assuming the system to have been at work for, say, five years, and assuming also that the palpably unfit have been eliminated during their preliminary training in Cadet units, etc., the results would be somewhat as follows:—

(1.) Assumed total male population of the United Kingdom, 22,500,000.

(2.) Due to appear before the Revision Boards:—

| | | |
|---|---|---|
| At age 20, first appearance | ... ... | 410,000 |
| At age 21, first or second do. | ... | 280,000 |
| At age 22, do. do. | ... ... | 45,000 |
| Total Recruit Contingent | ... ... | 735,000 |

(3.) Rejected as criminals and unfit, say three per cent., or 22,050.

(4.) Temporary exemptions, postponements, absentees, residents abroad, etc. (including mariners), say, 59 per cent., or 433,650.

NOTE.—This category would certainly not fall short of the proportion ascertained by German experience (average 57.5 p.c.), and would probably exceed it, owing to larger sea-faring population, greater volume of emigration, etc.—59 per cent. appears a reasonable estimate.

(5.) Voluntarily enlisted before age 20 in the Navy, or at that age in the Army, say four per cent, or 29,400.

(6.) The balance of the contingent, 249,900 men aged from 20 to 22 years, might be classified as under:

| | | | | |
|---|---|---|---|---|
| CATEGORY A. ..... | say 10 per cent. | of balance, | or ... | 24,990 |
| CATEGORY B. ... . | say 35 per cent. | ,, ,, | or ... | 87,495 |
| CATEGORY C. ..... | say 5 per cent. | ,, ,, | or ... | 12,495 |
| CATEGORY D. ..... | say 27 per cent. | ,, ,, | or ... | 67,473 |
| CATEGORY E. ..... | say 23 per cent. | ,, ,, | or ... | 57,477 |
| Total..... | | | | 249,900 |

(7.) The total of categories A., B., and C., available for service in combatant formations (including the Navy), is 124,950.

Adding the 29,400 volunteers, the grand total, 154,350, approximates remarkably closely to Lord Lansdowne's figures, already mentioned.

In practice, it may be presumed that the majority of army volunteers join either the Striking Force, the Guards Division, or the Fortress Troops.

Assuming the Navy to require 9,000 incorporations, and excluding volunteers and category D. recruits, the balance available for incorporation is reduced to 115,950.

This total can be, and doubtless must be, increased by acceptance of incorporations from category D. Moreover, any desired proportion of the balance remaining from category D. can be treated as supernumerary, given three months' training in active units, and relegated direct to Second Reserve. Yet again, the fixing of nominal legal liability at age 18 furnishes a reserve of recruiting power in an extremity.

We will assume that 115,950 recruits are available for incorporation *in the Metropolitan Army*. We now have to determine the approximate peace establishment that such a quota can support.

Here we will take advantage of the similarity of the suggested terms of service to those obtaining in the German

Army, and work a simple proportion sum; "if an annual German quota of 253,876 recruits supports an Active Peace Establishment of 590,325 (the figures for the year 1909), what Active Peace Establishment will an annual British quota of 115,950 support?"

The answer, approximately 269,000, represents the proposed Metropolitan Army Peace Establishment; and again it is interesting to note that *this figure corresponds very closely with the present nominal strength of our Territorial Army.*

This remarkable correspondence suggests suitable measures to be taken during the period of transition from our present system.

Without going into needlessly elaborate detail, it may be noted that this peace establishment would suffice for 12 Metropolitan Army Divisions, and this figure will be adopted as having been decided.

Turning to the organization of the Striking Force, the Overseas Forces of Occupation, and the Fortress Troops, whose duties in peace would be cognate to those at present performed by our Regular formations, the first thing to consider is the allotment of the Regular Army, which furnishes the key to our probable requirements. Non-combatant and auxiliary elements will be neglected, as in the foregoing pages.

**Present Distribution of the Regular Army.**

| | Inf. Bns. | | Cav. Rgts. | | Art. Bdes. | | Garrison Art. units. | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Guards. | Line. | Household. | Line. | R.H.A. | R.F.A. | Heavy. | Mountain. | Siege. | C. defence, &c. | R.E. units. (various.) |
| *Overseas Establishment.* | | | | | | | | | | | |
| 1. India, Aden, &c. ... | — | 51 | — | 9 | 5½ | 15 | 6 | 8 | 2 | 19 | — |
| 2. Egypt and Sudan ... | 1 | 4 | — | 1 | ½ | — | — | 1 | — | 1 | 1 |
| 3. Gibraltar, Malta and Hong Kong ... ... | — | 9 | — | — | — | — | — | — | — | 18 | 8 |
| 4. Colonies and China ... | — | 11 | — | 4 | 1 | 2 | — | — | — | 10 | 9 |
| Total ... | 1 | 75 | — | 14 | 7 | 17 | 6 | 9 | 2 | 48 | 18 |
| *Home Establishment.* | | | | | | | | | | | |
| 5. Principal Naval Bases and Fortresses ... ... | — | 10 | — | — | — | — | — | — | — | 37 | 14 |
| 6. Channel Islands ... | — | 2 | — | — | — | — | | — | — | 2 | 1 |
| 7. Home mobile (or sedentary) units ... ... | 8 | 61 | 3 | 14 | 7 | 33 | 6 | — | 3 | — | 19 |
| Total ... | 8 | 73 | 3 | 14 | 7 | 33 | 6 | — | 3 | 39 | 34 |
| Grand Total ... | 9 | 148 | 3 | 28 | 14 | 50 | 12 | 9 | 5 | 88 | 52 |

Note 1. Forces in Oversea Naval Bases, Coaling Stations, etc., other than those specified, are included under "Colonies."

Note 2. Forces in Home defended Ports, etc., other than those specified, are reckoned with Home Sedentary Units.

It is true that this distribution cannot be regarded as permanent in character. It is difficult to argue *pro* or *con* as regards the adequacy of the overseas establishment. The question of "Cardwellian principles" comes in, and the perfection of mobilization arrangements at home. It is not, however, unreasonable to suppose that, given a vastly improved military system within the United Kingdom, and consequently the possibility of embarking strong forces of reinforcement or expansion within a period measured by days rather than by weeks, this regular overseas establishment might be reduced in a few unimportant instances. It would certainly appear, on the other hand, that in some cases a Force of Occupation should be increased. The seizure of Tripoli by a European Power, for instance, presaging the creation of new naval bases in the Mediterranean, directs our special attention to Egypt.

The possibility of reducing somewhat our establishment of British troops in India, concurrently with a reduction of the Native Army by elimination of some of its less reliable and less valuable elements, has already been mooted. Such a reduction really appears to be desirable, and would certainly be feasible enough if the United Kingdom were itself better equipped for the despatch of supporting and expanding armies. After all, the Cardwellian principles hinge upon the retention of the voluntary system, and if this fetish be removed, other fetishes may surely follow it. Similar results can be attained by an adjustment of periods of service oversea and at home, under either a voluntary or compulsory system.

If the individual soldier be required to perform first a definite period of service at home, and then a definite and considerably longer period of service abroad, it is clear that a Home Establishment of a given strength will support a considerably larger Overseas Establishment, so far as periodical reliefs and drafting is concerned, especially when a quick home turnover of *personnel* is assured by compulsory measures. The permissible proportion between the two Establishments would appear to be roughly that existing between the two respective periods of service. The point, however, need not be laboured, since we are here concerned only with general principles, and if exception can be taken to the suggested Overseas Establishment, the entire argument is not of necessity vitiated, for any difficulties experienced could not well exceed those which at present are found to occasion periodical crises.

It will be assumed (1), that it is possible to reduce very slightly the British Establishment in India, (2), that it is desirable to increase that Establishment in Egypt, (3), that a reorganization of the British Forces in South Africa is carried through, involving a slight reduction.

The Home Establishments cannot be considered without reference to those Oversea.

The following, then, is suggested as the allotment of the Overseas Forces of Occupation :—

| | Inf. Bns. | Cav. Rgts. | Arty. Bdes. | | Other Arty. Units. | | | R.E. Units (various). |
|---|---|---|---|---|---|---|---|---|
| | | | R.H.A. | R.F.A. | Hvy. | Mtn. | Siege. | |
| 1. India, Aden, &c. ... | 48 | 9 | 5 | 12 | 4 | 15 | 2 | 8 |
| 2. Egypt and the Sudan.. | 8 | 2 | 1 | 1 | — | 1 | — | 1 |
| 3. Colonies and North China | 10 | 2 | 1 | 2 | — | — | — | 3 |
| Total ... ... | 66 | 13 | 7 | 15 | 4 | 16 | 2 | 12 |

(2) Organized in two Infantry Brigades and one Cavalry Brigade.
(3) Including a complete Mixed Brigade in South Africa.

The above do not, of course, include Fortress Troops.

The allotment of Fortress Troops would be as under :—

| | Inf. Bns. | Garrn. Arty. Units. (Coast def. and various). | R.E Units (various). | Cyclist Units. |
|---|---|---|---|---|
| OVERSEAS ESTAB. | | | | |
| 1. India, Aden, &c. ... | 6 | 10 | 7 | 4 |
| 2. Principal Naval Bases, &c. | 10 | 18 | 10 | 6 |
| 3. Other Coaling Stations, &c. | 3 | 10 | 8 | 3 |
| Total ... ... | 19 | 38 | 25 | 13 |
| HOME ESTAB. | | | | |
| 4. Channel Islands ... | 1 | 2 | 2 | 2 |
| 5. Home Naval Bases and Defended Ports | 12 | 33 | 15 | 15 |
| Total ... ... | 13 | 35 | 17 | 17 |
| Grand Total... | 32 | 73 | 24 | 30 |

Space will not admit of any detailed explanation of the proposed allotment to specified Fortresses, etc., nor is this relevant to the subject of the Essay.

The Striking Force at home, organized in three Divisions (each of three Brigades, of four battalions, etc.), with three Cavalry Brigades, would be constituted as under :—

| Inf. Bns. | Cav. Rgts. | Arty. Bdes. | Foot Arty. Units. | R.E. Units. |
|---|---|---|---|---|
| 36 | 9 | 3 R H.A.<br>9 R.F.A. | 6 Heavy Battys.<br>6 Mtn. Battys. | 9 Field Coys.<br>6 Signal Coys.<br>2 Railway Coys.<br>3 Aeroplane Coys. |

In principle, the component Brigades of the Striking Force would be stationed each in proximity to an important strategic point, regard being had to suitable training areas and proximity to the coastline. The Divisions would be assembled annually for Divisional training, but changes of permanent station would be exceptional.

Finally, the Guards Division, Headquarters London, would be constituted thus:—

| Inf. Bns. | Cav. Rgts. | Arty. Bdes. | R.E. Units. |
|---|---|---|---|
| 8 | 3 | 1 R.H.A.<br>2 R.F.A. | 2 Field Coys.<br>2 Signal Coys. |

Comparing the proposed organization of Overseas Forces, Home Striking Force, Fortress Troops, and Guards Division, with the present Regular Army Establishment, the nett variation from this latter Establishment (as regards combatant units only) is as follows:—

| | Inf. Bns. | | Cav. Rgts. | | Arty Bdes. | | Garrn. Arty. Units. | | | | R.E. Units (various). |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Guards. | Line. | H'hold. | Line. | R H.A. | R.F.A. | Heavy. | Mtn. | Siege. | Coast Def., &c. | |
| *Present Estab. of Regular Army.* | 9 | 148 | 3 | 28 | 14 | 50 | 12 | 9 | 5 | 83 | 52 |
| Proposed Overseas Forces of Occupation | — | 66 | — | 13 | 7 | 15 | 4 | 16 | 2 | — | 12 |
| Fortress Troops .. .. | — | 32 | — | — | — | — | — | — | — | 73 | 42 |
| Home Striking Force ... ... | — | 36 | — | 9 | 3 | 9 | 6 | 6 | — | — | 20 |
| Guards Division ... ... | 8 | — | 3 | — | 1 | 2 | — | — | — | — | 4 |
| *Total*, New Organization ... | 8 | 134 | 3 | 22 | 11 | 26 | 10 | 22 | 2 | 73 | 78 |
| *Reduction*, as compared with present Reg. Army Estab. | 1 | 14 | — | 6 | 3 | 24 | 2 | 13 (a) | 3 | 10 | 56 (a) |

(a) Increase.

The resulting strategically-mobile Field Army of the United Kingdom would comprise:—

1. ACTIVE UNITS.
   - 1 Guards Cavalry Brigade.
   - 1 Guards Division.
   - 3 Striking Force Cavalry Brigades.
   - 3 Striking Force Divisions.
   - 12 Metropolitan Army Cavalry Brigades.
   - 12 Metropolitan Army Divisions.

2. RESERVE UNITS for duty on Lines of Communication, &c.
   - 12 Mixed Metropolitan Army Reserve Brigades.

*Or Approx.*

(a). (ACTIVE UNITS).
- *Cavalry and Horse Artillery*: 1,710 officers, 38,400 others, 192 guns.
- *Infantry*: 6,100 officers, 190,400 others.
- *Artillery*: 1,500 officers, 53,600 others, 810 field, 270 howr., 60 heavy guns.
- *plus* Technical Troops, &c.

(b). (RESERVE UNITS).
- *Cavalry*: 150 officers, 3,600 others.
- *Infantry*: 1,392 officers, 46,200 others.
- *Artillery*: 300 officers, 10,000 others, 216 guns.
- *plus* Technical Troops, &c.

**Organization for the Support and Expansion of the Field Army.**

It will now be necessary to consider in greater detail the organization for the support, and if necessary for the expansion, of the Field Army.

In addition to the proposed First and Second Mixed Brigade formations, *cadres* for which would be maintained during peace, it will be necessary to provide depôts as under:—

| | | |
|---|---|---|
| 1 Guards Cav. Bde. Depôt | ... | for the Guards Cavalry Brigade. |
| 2 Guards Inf. Bde. Depôts | ... | ,, the two Guards Inf. Bdes. |
| 1 Guards Arty. Depôt | ... | ,, the Guards Division. |
| 1 Guards Engr. Depôt | ... | ,, the Guards Division. |

| | | |
|---|---|---|
| 3 S.F. Cav. Bde. Depôts, | ... | 1 for each S.F. Cavalry Bde. |
| 9 S.F. Inf. Bde. Depôts, | ... | 1 for each S.F. Infantry Bde. |
| 3 S.F. Arty. Depôts, | ... | 1 for each S.F. Division. |
| 3 S.F. Engr. Depôts | ... | 1 for each S.F. Division. |

| | | |
|---|---|---|
| 12 M.A. Cav. Bde. Depôts, | ... | 1 for each M.A. Cavalry Brigade. |
| 36 M.A. Inf. Bde. Depôts, | ... | 1 for each M.A. Infantry Brigade. |
| 12 M.A. Arty. Depôts, | ... | 1 for each M.A. Division. |
| 12 M.A. Engr. Depôts, | ... | 1 for each M.A. Division. |

The *cadres* and establishments of the Mixed Reserve Brigades and of the depôts would be as follows:—

| W.E. of Mixed Reserve Brigade (First or Second Categories) Guards, S.F., or M.A. | *Cadre* for First Res. Brigade. | *Cadre* for Second Res. Brigade. |
|---|---|---|
| 1 Cav. Regt. (of 2 sqdns.) ... ... ... | 2 troops. | 1 troop. |
| 1 Inf. Bde (of 4 bns.) ... ... ... ... | 4 coys. | 4 ½-coys. |
| 1 Bde. R.F.A. (three 4-gun battys.) .. | 3 sections. | 3 sub-sections. |
| 1 Fd. Co. R.E. ... ... ... ... ... | 1 section. | 1 section. |
| 1 Signal Co. R.E. .. ... ... ... | 1 section. | 1 section. |

Establishment of a Cavalry Brigade Depôt, capable of expansion to a Third Reserve Cavalry Regiment:—

1 Major, also i/c Records.
1 Captain.
2 Subalterns.
The necessary clerical and non-commissioned staff.
1 Troop.

Establishment of Infantry Brigade Depôt, capable of expansion to a Third Reserve Infantry Brigade:—

1 Major, also i/c Records.
4 Captains.
6 Subalterns.
The necessary clerical and non-commissioned staff.
4 ½-company cadres.

Establishment of a Divisional Artillery Depôt, which would *not* normally be required to expand into a Reserve unit:—

1 Major, also i/c Records.
1 Captain.
2 Subalterns.
The necessary clerical and non-commissioned staff.
1 2-gun section of each type used in the Division.

Establishment of a Divisional Engineer Depôt, which would *not* normally be required to expand into a Reserve unit:—

1 Captain, also i/c Records.
3 Subalterns.
The necessary clerical and non-commissioned staff.
Requisites for technical instruction.

War establishment of an Armed Police unit (Third Reserve), of which there would be one for each Division, Guards, S.F., and M.A.;—15 officers, 500 others. *Peace Cadre,* one officer, 12 others.

The normal procedure upon general mobilization would be as follows:—

1. Armed Police units would be expanded to W.E. by recall of Third Category Reservists, and would proceed to their stations.

2. First Category Reservists, after re-joining and receiving arms and equipment at their depôts, would proceed to expand :—

(a) Active units.
(b) First Mixed Reserve units.

Those most recently relegated to the Reserve joining Active units. Any surplus drafted to Second Mixed Reserve units.

3. Second Category Reservists, after rejoining and equipment at their depôt, would proceed to expand :—

(a) First mixed Reserve units yet unfilled.
(b) Second mixed Reserve units.

Any surplus remaining at the depôts.

4. Balance of Third Category Reservists, after expanding the Armed Police units, would rejoin at the depôt as summoned.

In principle, the depôts would be filled by summons to Reserve *personnel*; the Mixed Second Reserve units by drafts from the depôts; the Mixed First Reserve units by drafts from the Second Category Reserve units; and the Active Field Army units by demands, distributed as evenly as possible, upon both Reserve Categories and the depôts. Thus, no formation would be in danger of sudden emasculation by the demands for replacement of wastage, whilst some at least of the requisite Field Army reinforcements would be at hand in the shape of Reserve *personnel* employed upon the communications.

It will be observed that a uniformity of organization is assumed, which might not be attainable in actual practice.

After embarkation of the complete Field Army, there would remain within the United Kingdom, available for the triple purpose of (1) Home Territorial Defence, (2) Provision of Field Army drafts, and (3) Support or expansion of the Field Army :—

(a) The complete Fortress Troops, Home Establishment.
(b) One Guards Mixed First Reserve Brigade
(c) Three S.F. Mixed First Reserve Brigades.
Three S.F. Second do. do.
(d) 12 M.A. Mixed Second Reserve Brigades.
(e) The Armed Police units (16).
(f) The Depôt Troops, capable of organization by units.

Several important consequential problems must now be considered. These are :—

(1.) The recruiting, etc. of the Officers' Corps.
(2.) Staff organization and administration.
(3.) Application of the compulsory principle to the Navy.
(4.) Problems connected with the possible effects of proposed grant of self-government to component portions of the United Kingdom.

(5.) Finance.
(6.) Measures to be adopted during the period of transition.

It will be convenient to consider the last of these problems in the first instance.

PROPOSED MEASURES OF TRANSITION AND REORGANIZATION.

It must be borne in mind that the installation of any military system such as has been proposed must proceed as a forward step in an evolutionary process, starting from the system at present obtaining. Time will be necessary for full accomplishment, and any serviceable existing foundations must be utilized in the new construction or reconstruction. Periods of transition are always critical, and the indispensable transition measures must be regarded at best as a compromise.

The foundations which we may hope thus to utilize are represented by the undermentioned organizations, at present in existence:—

1. The Regular Army.
2. The Regular Army Reserve.
3. The Special Reserve.
4. The Territorial Army.
5. The County Associations.
6. The newly-created, and as yet unorganized, Territorial, Technical, and National Reserves.

The key-note of the proposed reorganization will be simply this:—

1. By reorganization, or reconstruction, of existing units (and where necessary, by creation of fresh units) to constitute the framework of the new system, at the outset, in its entirety.
2. By a reorganization of existing Reserve and Second-Line *personnel* not thus allotted, to constitute the several Reserve formations of the new system.
3. By suitable measures, to impress upon such *personnel* as may be insufficiently trained, a training fitting them for their new responsibilities.

The Regular Army can, by a relatively simple reorganization, provide without difficulty for the proposed active establishments of (1), The Overseas Forces of Occupation, (2) The Home Striking Force, (3) The Guards Division, and (4) The Fortress Troops, Home and Oversea.

New creations would be limited to a few Technical units, whose *personnel* could, in all probability, be found from existing Regular units not included in the foregoing Tables.

There would remain as surplus the Regular units already noted.

Neglecting Army Troops, specially Technical Units, and confining ourselves for the moment to the combatant portion

of the Field Army, it would be necessary, in order to complete the framework of the new system, to create, or to obtain by reconstruction, the following units, *viz.*:—

(A). ACTIVE ELEMENTS.

| | |
|---|---|
| (1) For 12 M.A. Cav. Bdes. | 36 Cav. Rgts.<br>24 Battys. R.H.A.<br>12 Field Troops, R.E.<br>12 Signal Sections, R.E. |
| (2) For 12 M.A. Divisions. | 144 Inf. Bns.<br>108 6-gun gun-battys. R.F.A.<br>36 6-gun howr. do. do.<br>24 4-gun heavy do. do.<br>36 Field Coys. R.E.<br>12 Signal Coys. R.E. |

(B). ORGANIZED RESERVE ELEMENTS.

| | |
|---|---|
| (1) For Guards Division...*In all* (Cadres for Mixed Reserve Brigades). | 3 troops Household Cav.<br>6 coys. Guards Inf.<br>4½ sections R.F.A.<br>2 sections Fd. Coys. R.E.<br>2 sections Sig. do. do. |
| (2) For Striking Force...*In all* (Cadres for Mixed Reserve Brigades). | 9 troops Cav.<br>18 coys. Inf.<br>13½ sections R.F.A.<br>6 sections Fd. Coys. R.E.<br>6 sections Sig. do. do. |
| (3) For Metropolitan Army ... ...*In all* (Cadres for Mixed Reserve Brigades). | 36 troops Cav.<br>72 coys. Inf.<br>54 sections R.F.A.<br>24 sections Fd. Coys. R.E.<br>24 sections Sig. do. do. |

(C). DEPÔTS.

| | |
|---|---|
| (1) 16 Cav. Bde. Depôts...*In all* (1 Guards, 3 S.F., 12 M.A.) | 1 troop Household Cav.<br>3 troops S.F. Cav.<br>12 troops M.A. Cav. |
| (2) 47 Inf. Bde. Depôts...*In all* (2 Guards, 9 S.F., 36 M.A.) | 8 ½-coy. cadres Guards.<br>36 do. do. S.F. Inf.<br>144 do. do. M.A. Inf. |
| (3) 16 Divl. Arty. Depôts...*In all* (1 Guards, 3 S.F., 12 M.A.) | 1 section Guards R.F.A.<br>3 sections R.F.A. (S.F.) and<br>12 sections R.F.A. (M.A.)<br>for each type of gun in the Division. |
| (4) 16 Divl. Engr. Depôts ... ...*In all* (1 Guards, 3 S.F., 12 M.A.) | 1 ½-coy. cadre Fd. Coy Guards.<br>2 Sig. sections do.<br>3 ½-coy. cadres S. F. Fd. Coys.<br>6 Sig. sections do. do.<br>12 ½-coy. cadres M.A. Fd. Coys.<br>24 Sig. sections do. do. |
| (D). ARMED POLICE CADRES. | 16 in all, one for each Division of Guards, S.F., and M.A. |

Recapitulating these requirements by Arms, we obtain :—

**Requirements in Units.**

| (A) ACTIVE UNITS. | Cavalry. | Infantry. | Artillery. | Engineers. |
|---|---|---|---|---|
| Met. Army | 36 rgts. | 144 bns. | 24 battys. R.H.A.<br>108 gun ,, R.F.A.<br>36 how.,, R.F.A.<br>24 hvy. ,, R.F.A. | 12 Fd. Troops R.E.<br>12 Sig. Sectns R.E.<br>36 Fd. Coys. R.E.<br>12 Sig. Coys. R.E. |
| (B) RESERVE BRIGADE CADRES, &c. | | | | |
| (i) Guards | 3 troops | 6 Coys. | 4½ sectns. R.F.A. | 2 sectns Fd. Coys.<br>2 ,, Sig. Coys. |
| (ii) S.F. | 9 troops | 18 Coys. | 13½ sectns. R.F.A. | 6 ,, Fd. Coys.<br>6 ,, Sig. Coys. |
| (iii) M.A. | 36 troops | 72 Coys. | 54 sectns. R.F.A. | 24 ,, Fd. Coys.<br>24 ,, Sig. Coys. |
| (C) DEPÔTS. | | | | |
| (i) Guards | 1 troop | 8 ½-Coys. | 1 sectn. R.F.A. | various. |
| (ii) S.F. | 3 troops | 36 ½-Coys. | 3 gun ,, R.F.A.<br>3 how.,, R.F.A.<br>3 hvy ,, R.F.A. | various. |
| (iii) M.A. | 12 troops | 144 ½-Coys. | 12 gun ,, R.F.A.<br>12 how.,, R.F.A.<br>12 hvy ,, R.F.A. | various. |

Neglecting Engineers and Armed Police Cadres, these requirements may be re-summarized as under :—

**Requirements for Reserve Cadres and Depôts.**

| | | | | |
|---|---|---|---|---|
| (i) Guards ... ... | 4 troops, | 10 coys., | 5½ sections | R.F.A. |
| (ii) S.F. ... ... | 12 ,, | 36 ,, | 22½ ,, | ,, |
| (iii) M.A. ... ... | 48 ,, | 144 ,, | 90 ,, | ,, |

*Equivalent to :—(say)*

| | | | |
|---|---|---|---|
| (i) Guards ... ... | 1 squadron, | 1 bn. *plus* 2 coys., | 2 battys. R.F.A. |
| (ii) S.F. ... ... | 1 Regt. | 4 bns. *plus* 4 coys., | 8 battys. R.F.A. |
| (iii) M.A. ... ... | 4 Regts. | 18 bns. | 10 battys. R.F.A. |

*Add, requirements for Active M.A. Units :—*

| | | | |
|---|---|---|---|
| 12 Cav. Bdes and 12 Divns. | 36 Regts. | 144 bns. | 24 battys. R.H.A.<br>144 battys. R.F.A.<br>24 heavy do. |

The units of existing formations, available for constitution of the foregoing are :—

| | | |
|---|---|---|
| (i) REGULAR ARMY ... ... (surplus to New Organization, as noted.) | *Guards*, ... ... | 1 Inf. Bn. |
| | *Line Cav.* ... ... | 6 Regts. |
| | *Line Inf.* ... ... | 14 Bns. |
| | *R.H.A.* ... ... | 6 battys. |
| | *R.F.A.* ... ... | 72 battys. |
| | *R.G.A.* ... ... | 2 heavy battys. |

| | | |
|---|---|---|
| (ii) SPECIAL RESERVE | ... | 2 Regiments Cavalry.<br>102 Battalions Infantry. |
| (iii) H.A. COMPANY | ... ... | 2 battys. H.A.<br>1 Bn. Inf. |
| (iv) TERRITORIAL ARMY | ... | 55 Regts. Yeomanry.<br>12 battys. H.A.<br>165 battys. F.A.<br>3 battys. Mtn. Arty.<br>20 heavy battys.<br>202 Bns. Inf. (*incl.* Cyclists).<br>28 Field Coys. Engrs.<br>14 Telegraph Coys. Engrs.<br>5 Cable Coys. Engrs.<br>5 Airline Coys. Engrs.<br>5 Wireless Coys. Engrs. |

DEFICIENCIES in the framework of the new system would be made up from this latter Table, as follows:—

| | | |
|---|---|---|
| (i) | Guards Cav. Res. *Cadres* ... | formed by recall of Household Cav. Reservists, and selected Line Reservists. |
| | Guards Inf. Res. *Cadres* ... | formed from *personnel* of the surplus Guards Inf. Bn., *plus* the equivalent of two coys., formed by recall of Guards Reservists. |
| | Guards Arty. Res. *Cadres* ... | formed from *personnel* of two surplus Regular battys. R.F.A. |
| (ii) | S.F. Cav. Res. *Cadres* ... | formed from *personnel* of one surplus Regular Line Cav. Regt. |
| | S.F. Inf. Res. *Cadres* ... | formed from *personnel* of four surplus Regular Inf. Bns. |
| | S.F. Arty. Res. *Cadres* ... | formed from *personnel* of eight surplus Regular battys. R.F.A. |
| (iii) | M.A. ACTIVE UNITS. | |
| Cavalry requirements, 36 regts. | | 5 formed by conversion of 5 surplus Regular Cav. Regts.<br>31 formed by conversion of 31 Yeomanry regiments. |
| Infantry requirements, 144 bns. | | 10 formed by conversion of 10 surplus Regular Inf. Bns.<br>102 formed by conversion of 102 Special Res. Bns.<br>32 formed by conversion of 32 Territorial Bns. |
| Artillery requirements 24 battys. H.A. | | formed by conversion of 24 surplus Reg. Battys. R.F.A. |
| 144 batteries F.A | | 38 formed by conversion of 38 surplus Reg. Battys. R.F.A.<br>106 formed from *personnel* of surplus Reg. elements R.G.A. and from Territorial Battys. of H.A. and F.A. |

24 heavy batteries { 2 formed by conversion of two surplus Regular Heavy battys. / 22 formed from *personnel* of surplus Reg. elements R.G.A., and from that of Territorial heavy battys.

So far, in thus reconstructing, there have been used for the framework of (1), The Active Metropolitan Army, (2), The Striking Force and its organized Reserve formations, and (3), The Guards Division and its organized Reserve formations, the following:—

(1.) The present Regular Army, *in toto*.
(2.) 31 Yeomanry Regiments.
(3.) 102 (all) Special Reserve Battalions.
(4.) 32 Territorial Infantry Battalions.
(5.) A portion of the Territorial Artillery *personnel*.

There remain, available for the constitution of (1) any desired M.A. Army Troops, (2) the M.A. Reserve Cadres, and (3) any special corps or units to be stationed in the Outer Islands, the following:—

(i) 24 Yeomanry Regiments.
(ii) Two H.A.C. Batteries Horse Artillery.
(iii) One H.A.C. Battalion Infantry.
170 Battalions Territorial Infantry.
(iv) One Railway Battalion Territorial Force.
One Balloon Company Territorial Force.
(v) The unallotted personnel of the Territorial Horse, Field, Mountain, and Heavy Artillery.
(vi) The Territorial, Technical, and National Reservists.

It is scarcely necessary to give detailed proposals for this portion of the reconstruction. Certain *desiderata,* such for example as the perpetuation of the tradition of the Honourable Artillery Company, will suggest themselves. This particular corps might furnish the nucleus of the M.A. Army Troops.

Any Yeomanry or Territorial units surplus to requirements would be disbanded, their *personnel,* together with that otherwise unallotted, would be summoned, under a special Act, to receive from three to six month's training in a S.F. depôt, or with S.F. Active units, and would then be relegated to the appropriate M.A. Reserve Category, regard having been had to age, etc.

Finally, there would remain the following formations, not as yet alluded to, which we may regard as available for the constitution of any special Fortress Troops, Technical units (Active or Reserve) which it might be desirable to form:—

(i) Two Corps, Special Reserve R.G.A. (In Ireland).
(ii) 90 Coast-defence Coys., Territorial R.G.A.
(iii) One Corps, Electrical Engineers, T.F.
(iv) 21 Works Coys. R.E., T.F.
(v) 21 Electric Light Units, R.E., T.F.

Utilizing the services of the above, so far as requisite, the organization in depth of the Fortress Troops Reserve would be placed upon a satisfactory footing from the outset.

All Regular Army Reservists, unallotted, would go to constitute the Reserve *personnel* of the Striking Force and Fortress Troops, being drafted to the several Reserve Categories in accordance with age, etc.

The aggregate Peace Establishment corresponding to the proposed re-organization would be as follows:—

**(A). Overseas Establishment.**

| | | | | | | | Officers. | Others. |
|---|---|---|---|---|---|---|---|---|
| (1) | FORCES OF OCCUPATION. | | | | | | | |
| 66 | Infantry Battalions | – each | 29 | Officers, | 995 | others ... | 1,914 | 65,670 |
| 13 | Cavalry Regiments | – ,, | 25 | ,, | 550 | ,, ... | 325 | 7,150 |
| 7 | Brigades R.H.A. | – ,, | 19 | ,, | 660 | ,, ... | 133 | 4,620 |
| 15 | Brigades R.F.A. | – ,, | 25 | ,, | 940 | ,, ... | 375 | 14,100 |
| 4 | Heavy Batteries | – ,, | 6 | ,, | 225 | ,, ... | 24 | 900 |
| 16 | Mountain Batteries | – ,, | 6 | ,, | 220 | ,, ... | 96 | 3,520 |
| 2 | Siege Units | – ,, | 26 | ,, | 530 | ,, ... | 52 | 1,060 |
| 12 | R.E. Units | – ,, | 6 | ,, | 210 | (say) ... | 72 | 2,520 |
| | | | | Total | ... | ... ... | 2,991 | 99,540 |
| (2) | FORTRESS TROOPS. | | | | | | | |
| 19 | Infantry Battalions | – each | 20 | Officers, | 750 | others ... | 380 | 14,250 |
| 38 | Coast Def. Coys. | – ,, | 6 | ,, | 250 | ,, ... | 228 | 9,500 |
| 25 | R.E. Units | – ,, | 6 | ,, | 210 | (say) ... | 150 | 5,250 |
| 13 | Cyclist Units | – ,, | 5 | ,, | 150 | ,, ... | 65 | 1,950 |
| | | | | Total | ... | ... ... | 888 | 30,950 |
| | GRAND TOTAL, OVERSEAS ESTABS. (NEGLECTING STAFFS, ETC.) ... ... ... ... ... ... ... | | | | | | 3,879 | 130,490 |
| | ADD, FOR STAFFS, ETC., SAY ... ... ... ... | | | | | | 200 | 1,500 |
| | GRAND AGGREGATE, OVERSEAS ESTABS. ... ... | | | | | | 4,079 | 131,990 |

**(B). Home Establishment.**

| | | | | | | | Officers. | Others. |
|---|---|---|---|---|---|---|---|---|
| (1) | FORTRESS TROOPS. | | | | | | | |
| 13 | Infantry Battalions | – each | 20 | Officers, | 750 | others ... | 260 | 9,750 |
| 35 | Coast Def. Coys. | – ,, | 5 | ,, | 200 | ,, ... | 175 | 7,000 |
| 17 | R.E. Units | – ,, | 5 | ,, | 200 | ,, ... | 85 | 3,400 |
| 17 | Cyclist Units | – ,, | 5 | ,, | 100 | ,, ... | 85 | 1,700 |
| | | | | Total | ... | ... ... | 605 | 21,850 |
| (2) | HOME STRIKING FORCE. | | | | | | | |
| 36 | Infantry Battalions | each | 29 | Officers, | 900 | others ... | 1,044 | 32,400 |
| 9 | Cavalry Regiments | – ,, | 25 | ,, | 500 | ,, ... | 225 | 4,500 |
| 3 | Brigades R.H.A. | – ,, | 19 | ,, | 620 | ,, ... | 57 | 1,860 |
| 9 | Brigades R.F.A. | – ,, | 25 | ,, | 900 | ,, ... | 225 | 8,100 |
| 6 | Heavy Batteries | – ,, | 6 | ,, | 200 | ,, ... | 36 | 1,200 |
| 6 | Mountain Batteries | – ,, | 6 | ,, | 200 | ,, ... | 36 | 1,200 |
| 9 | Field Coys. R.E. | – ,, | 6 | ,, | 200 | ,, ... | 54 | 1,200 |
| 6 | Sig. Coys. R.E. | – ,, | 10 | ,, | 150 | ,, ... | 60 | 900 |
| 2 | Rail Coys. R.E. | ,, | 6 | ,, | 220 | ,, ... | 12 | 440 |
| 3 | Aeroplane Coys. R.E. | ,, | 6 | ,, | 50 | ,, ... | 18 | 150 |
| | | | | Total | ... | ... ... | 1,767 | 51,950 |

(3) GUARDS' DIVISION.

| | | | | | | Officers. | Others. |
|---|---|---|---|---|---|---|---|
| 8 | Infantry Battalions | —each | 29 | Officers, | 950 others ... | 232 | 7,600 |
| 3 | Cavalry Regiments | — ,, | 25 | ,, | 550 ,, ... | 75 | 1,650 |
| 1 | Brigade R.H.A. | — ,, | 19 | ,, | 630 ,, ... | 19 | 630 |
| 2 | Brigades R.F.A. | — ,, | 25 | ,, | 900 ,, ... | 50 | 1,800 |
| 2 | Field Coys. R.E. | — ,, | 6 | ,, | 210 ,, ... | 12 | 420 |
| 2 | Sig. Coys. R.E. | — ,, | 10 | ,, | 150 ,, ... | 20 | 300 |
| | | | | Total | ... ... ... | 408 | 12,400 |

(1) METROPOLITAN ARMY.

| | | | | | | Officers. | Others. |
|---|---|---|---|---|---|---|---|
| 36 | Cavalry Regiments | —each | 20 | Officers, | 450 others ... | 720 | 16,200 |
| 8 | Brigades R.H.A. | — ,, | 17 | ,, | 550 ,, ... | 136 | 4,400 |
| 12 | Field Troops R.E. | — ,, | 3 | ,, | 75 ,, ... | 36 | 900 |
| 12 | Signalling Sections | — ,, | 3 | ,, | 60 ,, ... | 36 | 720 |
| 144 | Infantry Battalions | — ,, | 23 | ,, | 750 ,, ... | 3,312 | 108,000 |
| 48 | Brigades R.F.A. | — ,, | 20 | ,, | 760 ,, ... | 960 | 36,480 |
| 24 | Heavy Batteries | — ,, | 6 | ,, | 150 ,, ... | 144 | 3,600 |
| 36 | Field Coys. R.E. | — ,, | 5 | ,, | 175 ,, ... | 180 | 6,300 |
| 12 | Sig. Coys. R.E. | — ,, | 7 | ,, | 100 ,, ... | 84 | 1,200 |
| | | | | Total | ... ... ... | 5,616 | 177,800 |

5) ORGANIZED RESERVE FORMATIONS.

(*i*) 16 *Mixed First Reserve Brigades* (1 *Guards*, 3 *S.F.*, 12 *M.A.*)

| | | | | | | Officers. | Others. |
|---|---|---|---|---|---|---|---|
| *Each* 2 | Troops Cavalry | —each 3 | Officers, | 40 others | ... | 96 | 1,280 |
| 4 | Coys. Infantry | — ,, 3 | ,, | 80 ,, | ... | 192 | 5,120 |
| 3 | Sectns. R.F.A. | — ,, 2 | ,, | 60 ,, | ... | 96 | 2,880 |
| 1 | Sectn. Fd. Coy. | — ,, 2 | ,, | 40 ,, | ... | 32 | 640 |
| 1 | Sectn. Sig. Coy. | — ,, 1 | ,, | 25 ,, | ... | 16 | 400 |

(*ii*) 16 *ditto Second Reserve Brigades* (*as above.*)

| | | | | | | Officers. | Others. |
|---|---|---|---|---|---|---|---|
| *Each* 1 | Troop Cavalry | —each 2 | Officers, | 25 others | ... | 32 | 400 |
| 4 | ½-Coys. Inf. | — ,, 2 | ,, | 50 ,, | ... | 128 | 3,200 |
| 3 | Sub.-Scns. R.F.A. | ,, 1 | ,, | 20 ,, | ... | 16 | 320 |
| 1 | Sctn. Fd. Coy. | — ,, 1 | ,, | 20 ,, | ... | 16 | 320 |
| 1 | Sctn. Sig. Coy. | — ,, 1 | ,, | 10 ,, | ... | 16 | 160 |
| | | | Total | ... ... | ... | 640 | 14,720 |

(6) DEPÔTS.

(*i*) 16 *Cavalry Brigade Depôts* (1 *Guards*, 3 *S.F.*, 12 *M.A*),

| | Officers. | Others. |
|---|---|---|
| *Each* four officers, 40 others ... ... ... | 64 | 640 |

(*ii*) 47 *Infantry do.* (2 *Guards*, 9 *S.F.*, 36 *M.A*).

| | | |
|---|---|---|
| *Each* 11 officers, 100 others ... ... ... | 517 | 4,700 |

(*iii*) 16 *Divisional Artillery Depôts* (1 *Guards*, 3 *S.F.*, 12 *M.A*).

| | | |
|---|---|---|
| *Each* four officers, 60 others ... ... ... | 64 | 960 |

(*iv*) 16 *Divisional Engineer Depôts* (*do. do*).

| | | |
|---|---|---|
| *Each* four officers, 40 others ... ... ... | 64 | 640 |
| Total ... ... ... ... | 709 | 6,940 |

Recapitulating by branches, the combatant Peace Establishment is found to be :—

| | | Officers. | Others. |
|---|---|---|---|
| (1) | OVERSEA FORCES. | | |
| | Active Units ... ... ... ... | 4,079 | 131,990 |
| (2) | HOME FORCES. | | |
| | (a) *Fortress Troops* (Active Units) ... | 605 | 21,850 |
| | (b) *Striking Force* Offrs. Others. | | |
| | Active Units ... 1,767 51,950 | | |
| | 1st Res. Bdes. ... 81 1,935 | | |
| | 2nd Res. Bdes. ... 45 945 | | |
| | Cavalry Depôts ... 12 120 | | |
| | Infantry do. ... 99 900 | | |
| | Artillery do. ... 12 180 | | |
| | Engineer do. ... 12 120 | 2,028 | 56,150 |
| | (c) *Guards.* | | |
| | Active Units ... ... 408 12,400 | | |
| | 1st Res. Bdes. ... 27 645 | | |
| | 2nd. do. do. ... 15 315 | | |
| | Cavalry Depôt ... 4 40 | | |
| | Infantry do. ... 22 200 | | |
| | Artillery do. ... 4 60 | | |
| | Engineer do. ... 4 40 | 484 | 13,700 |
| | (d) *Metropolitan Army.* | | |
| | Active Units ... ... 5,616 177,800 | | |
| | 1st Res. Bdes. ... 324 7,740 | | |
| | 2nd do. do. ... 180 3,780 | | |
| | Cavalry Depôts ... 48 480 | | |
| | Infantry do. ... 132 1,200 | | |
| | Artillery do. ... 48 720 | | |
| | Engineer do. ... 48 480 | 6,396 | 192,200 |
| | GRAND TOTAL ... ... | 13,592 | 415,890 |
| | (Excluding Staffs for Home Establishment). | | |

This total, it must be remembered, is exclusive of Army Troops, Non-Combatant and Auxiliary Services. These may be allowed for as under :—

| | Officers. | Others. |
|---|---|---|
| Grand Total, brought forward ... | 13,592 | 415,890 |
| *Add*, for Non-Combatant and Auxiliary Services ... ... ... ... | 1,200 | 25,000 |
| *Add*, for Home Staffs, etc. ... ... | 400 | 1,500 |
| *Add*, for Army Troops and any special formations ... ... ... ... | 200 | 6,000 |
| GRAND AGGREGATE ... | 15,392 | 448,390 |
| ALL RANKS ... ... ... | 463,782 | |

For comparison, it may be noted that the following were the Establishments and Actual Strength respectively of the branches mentioned, as at the 30th September, 1910:—

| | All Ranks. | |
|---|---|---|
| | Estab. | Strength. |
| Regular Army ... ... ... | 181,263 | 177,388 |
| Special Reserve ... ... ... | 86,539 | 63,086 |
| Territorial Forces ... ... ... | 315,924 | 270,580 |
| | 583,726 | 511,054 |

This comparison is most instructive.

Assuming average rates of transfer to the Reserve, of mortality, casualties, etc., the strength of the *fully-trained* Reserve formations, of all categories, would be approximately as under, after five complete years operation:—

| | |
|---|---|
| Fortress Troops ... ... ... ... ... | 31,000 |
| Striking Force ... ... ... ... ... | 100,000 |
| Guards Division ... ... ... ... ... | 16,000 |
| Metropolitan Army ... ... ... ... ... | 430,000 |
| Total ... ... ... ... | 577,000 |

To this total may be added (say) 120,000 partially-trained reservists, mainly from Category D. of the Annual Contingents.

This computation makes no pretension to absolute precision, since only experience could determine the average periods of colour-service, allowing for re-engagements, etc., in each branch. The total is probably an under-, rather than an over-estimate.

The maintenance of these reconstructed Establishments now claims attention. Once the full machinery of Universal Compulsory Service was in operation, this would clearly present no difficulty, seeing that the proposed Peace Establishment is actually somewhat less than that now attempted under a voluntary system.

It would, however, be impossible to introduce that machinery forthwith. Probably from three to five years notice would be deemed essential, in order to afford the nation at large an opportunity of adapting itself to the altered conditions.

Especially would it be necessary to afford parents a chance of considering the course of education to be pursued by their sons, previous to their appearance before the Revision Boards.

Periods of transition are notoriously delicate, and here important social and political interests are touched. Assuming national goodwill, and a reasonably complete transfer of serving *personnel* from the Old to the New system, it is probable that the critical interval could be bridged adequately by the application of a modified conscriptive system, administered with tact and discretion, and aiming chiefly at maintaining the authorized Peace Establishments during the *interregnum*.

Should, moreover, suitable and suitably-sited accommodation for the new forces not be available at the outset, it might be necessary to rely, during the transition period, upon an intermittent or militia training scheme, for at least a portion of the *personnel.*

These special needs should be met by the passage of a special Act of Parliament.

The existing machinery of the County Associations will at once suggest itself as eminently suitable for the performance of the duties incumbent upon Revision Boards, so far as regards statistical labours and the inspection of the Annual Recruit Contingents. For this purpose the constitution of the Associations would require some amendment, a proportion of Local Government officials being added for consultative and advisory functions, and to furnish a connecting link between the Civil and Military Government Departments concerned. The medical examination of the Contingent would be undertaken by Army medical officers specially appointed, and final approval of the accepted recruits be expressed by the military officers of the Association.

It is claimed for the foregoing proposals that:—

(1) They ensure a larger strategically-mobile Army than has been provided at any period of our history.

(2) This result is obtained with an actual (slight) reduction of the Peace Establishments at present authorized.

(3) They provide for the best possible utilization of all that is solid in our existing organization, each element of the old system occupying an appropriate niche in the new.

(4) Disbandments of Regular units are reduced to a minimum.

(5) Our present disproportionate establishment of sedentary troops is materially reduced, this reduction being justified by the acquisition of a larger and more efficient Field Army.

(6) In the new system effect is given to the approved modern practice of increasing the proportion of Active to Reserve *personnel,* beyond that accepted when "*levées en masse*" were still accounted a valuable portion of the Military system.

(7) No specious attempts are made to secure an organization in depth of Reserve elements, beyond that reasonably feasible in actual practice.

**Recruiting, Maintenance, etc., of the Corps of Officers.**

In a compulsorily-recruited short-service Army, where training is necessarily intensive, the *personnel* of the Peace

Establishment constantly changing, and where the mobilized unit must contain a relatively high proportion of reservists, it is the officers who constitute the real *cadres* of the Army.

On their shoulders lies the burden of perpetuating the traditional standards of efficiency and discipline. In many respects, indeed, the task of the officer in such an Army is more onerous and more exacting than is the case in the more easy-going Voluntary Service. Hence, no cares devoted to the initial selection of officer candidates can be deemed excessive.

At the same time, only those candidates who have been prepared for entry into the military profession by a course of both general and specialized education, sufficiently prolonged, and of a type favourable to the indispensable development of "character," can be accounted truly desirable.

It will be well to insist at the outset upon the necessity of continuing to rely for the supply of at least the great majority of professional officers, upon those social *strata* which have hitherto furnished the bulk of our officer-recruits. In the best interests of both the Army and the nation there can be no question of any wholesale democratization of our commissioned ranks.

If at first sight it may appear doubtful whether the social *strata* referred to are capable of supplying a sufficient number of officers for a compulsory-service Army, this doubt will be dispelled by consideration of the immense stimulus afforded by the mere existence of compulsion to service. The classes *born to* responsibility and leadership will assuredly seek to qualify for positions wherein these may be practised, rather than accept the inferior places. In our case there can be no danger of establishing a so-called military caste, nor yet of introducing the features of "militarism." Such developments are wholly foreign to our national character, and are abhorred by none more sincerely than by the circles which produce, and surround, the British officer.

The British officer is a "many-sided man" by comparison with his Continental *confrère,* who has few interests of sport, travel, or activity, beyond the limits of his profession.

Nevertheless, room must be found for meritorious men, whatever their social origin, and that irrespective of long preparatory periods of character-formation. It is also necessary to provide for the numerous cases in which a youth commences to entertain the idea of a commission at a comparatively late age, possibly after an education mainly devoted to preparation for a wholly different profession.

The following suggestions are offered in the belief that, whilst they secure a large majority of professionally-educated officer-candidates, they open the door to all desirable recruits who may not have enjoyed the advantages of prolonged preparation.

Six principal channels of entry to the commissioned ranks would be recognized, *viz.*:—

1. Service in the ranks with the intention of qualifying for a commission. (A mode of entry corresponding generally with the German system of *Fahnenjunker*).
2. Selection of approved non-commissioned officers, who may not have entertained originally the idea of a commission.
3. Education in a special Army Training College, in two grades.
4. Education completed at a University.
5. Education completed at the Royal Military Academy, Woolwich, for commissions in the technical branches of the Engineers and the *Fortress Artillery*.
6. Service as a one-year Volunteer, for commissions as Reserve officer only.

These will be considered *seriatim*:—

1. Candidates between the ages of 19 and 21 years would apply to the Regimental Commander of the unit in which they wished to serve. This officer would satisfy himself as to the eligibility of the candidate as regards birth, education and character.

Approved candidates would then enter the ranks of that unit as private soldiers, wearing, however, a special distinctive badge, and being permitted to reside out of barracks, or in special quarters in barracks.

After nine months service with a record of zeal, good conduct, and intelligence, candidates would be eligible to attend a qualifying examination for entry to the Junior classes of a War School, of which there would be one or more in each Divisional Territorial Area. This examination would be confined to elementary military subjects. Unsuccessful candidates would be permitted to take the examination for a second time after an interval of six months, if then again rejected they would be required to complete the normal period of colour-service as a private soldier.

Successful candidates would be sent, free of all expenses, to the War School, where they would undergo an eighteen months course of instruction in Military History, Tactics, Topography, Fortification, Organization, Hygiene, Gymnastics, Riding, Animal Management, etc.

At the conclusion of this course, a competitive examination would be held in the foregoing subjects, and the successful candidates would be posted to either Striking Force or Metropolitan Army units as *Ensigns*, this rank being introduced as a grade in the military hierarchy junior to that of Second Lieutenants.

Ensigns would be regarded as Probationary Officers in their units, and would be obliged to attend classes of instruction

for twelve months after joining, when, on the written certificate of the Commanding Officer as to assiduity and desirability, they would be posted as second lieutenants.

Unsuccessful candidates at the War School competitive examination would be relegated to the appropriate Reserve formation with the grade of Ensign, and would be permitted to attend a further qualifying examination within a period of two years, for the rank of Second Lieutenant of Reserve.

2. SELECTED N.C.O.'S, at any period after completion of eighteen months colour-service, if aged under 25 years, would be sent to the War School for the same course of instruction as that mentioned in Paragraph 1 above, with a view to qualification for the rank of Ensign. Successful candidates would normally be posted, in the first instance, to Metropolitan Army units, receiving, should their pecuniary circumstances require it, an allowance for outfit.

3. SPECIAL ARMY TRAINING COLLEGES, in two grades, *viz.*:—(i) Preparatory, and (ii) Senior; would be established in England, Wales, Scotland, and Ireland.

Candidates for admission to a Preparatory Training College would be between the ages of 10 and 12 years, certified by the Revision Board of the district within which their parents or guardians reside, as being socially, physically, and educationally likely to become desirable professional officers.

A qualifying examination for admission would be held quarterly in each year, a competitive element being introduced only in the event of candidates being in excess of available accommodation. The fees payable would be £40 per annum, with a reduction of £10 for sons of former officers. Pupils would receive a thorough general education until attaining the age of 15, being organized in Junior Cadet Corps, and receiving the preparatory military instruction prescribed for those Corps.

Suitable existing private schools might be certified by the Educational Authority for inclusion in the Category, and would receive State grants of (say) £90 or £100 per annum for each Military pupil, subject to inspection, and control of their curriculum by the State Educational Authority.

At age 15, a qualifying examination would be held for transfer to a Senior Training College, where the general education of the pupils would proceed to the age of 18½ years. The pupils of these colleges would be organized in Senior Cadet Corps, and would receive the prescribed preparatory military instruction.

At age 18½, a competitive examination, including elementary military subjects, would be held for admission to the higher classes of the War School, where successful candidates would be given a specialized 18 months course of instruction in foreign languages and the usual military subjects. On completion of

this course, a qualifying examination would be held for direct appointment to the rank of Second Lieutenant, in either the Striking Force or the Metropolitan Army. Unsuccessful candidates would be required to perform one year's colour-service as private soldiers, when they would be relegated to the Reserve with the rank of Second Lieutenant of Reserve.

Selected existing public schools, or the "modern sides" or "modern departments" of existing public schools, might be certified for inclusion in this Category, and, subject to the usual conditions, would receive State grants for each military pupil of from £95 to £150 per annum, the fees chargeable to parents being £50, with a reduction of £10 for the sons of former officers.

Certain Senior Training Colleges would be selected for the education of cavalry and infantry candidates, others for horse and field artillery, others for auxiliary services, their Cadet Corps being organized and instructed accordingly.

In the War Schools, candidates for all combatant branches would receive the same course of specialized military instruction, special classes being formed for the auxiliary services. No fees would be payable, other than those for messing, etc.

4. UNIVERSITY CANDIDATES.—Candidates, aged under 21, who had completed a course of preparatory military instruction in their school and university (Senior) Cadet Corps, would be eligible to undergo a qualifying examination for the admission to the Junior classes of a War School, with a view to qualification for the rank of Ensign, as in Paragraph 1. Candidates, aged under 25, after completion of the usual university course, would be eligible for admission to an Army Medical Training College (to be established).

5. THE ROYAL MILITARY ACADEMY, WOOLWICH, would be set apart for the specialized education of candidates for the technical branches, *i.e.*, the Fortress Artillery, and the Fortress and Field Engineers. Admission would be by competitive examination between the ages of 15 and 17½ years, the three years course being combined with general educational subjects for the first 18 months. On completion of the course a qualifying examination would be held for direct appointment to the rank of Second Lieutenant.

The fee payable would be £50 per annum, with a reduction of £10 for sons of former officers.

6. ONE-YEAR VOLUNTEERS, on completion of their colour-service, after the first four months of which they would perform as supernumeraries the duties of each non-commissioned rank in turn, would, on the certificate of their commanding officer, be relegated to the Reserve with the rank of Ensign or Second Lieutenant, according to their capabilities.

## RATES OF PAY OF OFFICERS IN THE SEVERAL BRANCHES.

The following Rates of Regimental Pay are suggested:—

### DAILY PAY.

| Rank. | Guards. | | Fortress Troops | | Striking Force & Met. Army. | | Reserve. |
|---|---|---|---|---|---|---|---|
| | Cav. & Arty. | Inf. & Engrs. | Arty. & Engrs. | Inf. | Cav. & Arty. | Inf. & Engrs. | |
| Colonel | 27/6 | 25/- | 23/- | 21/- | 23/- | 22/- | 10/- |
| Lt-Col. | 25/- | 23/- | 21/- | 20/- | 22/- | 1/- | 10/- |
| Major | 20/- | 19/- | 19/- | 18/- | 20/- | 19/- | 7/6 |
| Captain | 18/- | 17/- | 18/- | 17/- | 18/- | 17/- | 5/- |
| Lieut. | 15/- | 14/- | 15/- | 14/- | 15/- | 14/- | 3/- |
| 2nd Lieut. | 12/- | 11/- | 11/- | 10/- | 12/- | 1/- | 2/- |
| Ensign | 10/- | 10/- | — | 7/6 | 7/6 | 7/6 | 1/- |

### RATES OF ADDITIONAL PAY.

| Rank. | Guards | Oversea Forces. | | Daily Engineer Pay. | |
|---|---|---|---|---|---|
| | Pay. Per Ann. | Max. Daily | Min. Daily | Fortress | Field |
| Colonel ... ... ... | £200 | 15/- | 10/- | 10/- | 10/- |
| Lieut.-Colonel ... ... | £175 | 13/- | 9/- | 8/- | 7/6 |
| Major ... ... ... | £150 | 12/- | 8/- | 7/- | 6/- |
| Captain ... ... ... | £125 | 10/- | 6/- | 6/- | 5/- |
| Lieutenant ... ... | £100 | 9/- | 5/- | 5/- | 4/- |
| 2nd Lieutenant ... ... | £80 | 7/- | 4/- | 4/- | 3/- |
| Ensign ... ... ... | £70 | 5/- | 3/- | — | — |

**Conditions of Promotion, etc.**

Officers of the Striking Force and the Overseas Forces of Occupation would be on *one* roster for promotion, officers of the Metropolitan Army on another roster, officers of the Guards Division and of the Fortress Troops on separate rosters.

Promotion to be normally by seniority in each rank, subject to qualification by examination. Promotion to be automatic at the under-mentioned age limits, etc., subject to qualification by examination.

| | |
|---|---|
| Ensign to 2nd Lieutenant | ...after 18 months service as Ensign. |
| 2nd Lieut. to Lieutenant | ...after three years service as 2nd Lieutenant. |
| Lieutenant to Captain | ...after seven years service as Lieutenant. |
| Captain to Major ... | ...after six years service as Capt. |
| Major to Lieut.-Col. ... | ...after six years service as Major. |
| Lt.-Colonel to Colonel... | ...by selection, with a view to further employment as General Officer. |

All resignations and retirements to be granted upon conditions of service in the Reserve formations, at the rates of pay mentioned, where such resignation or retirement is sought for honourable private reasons.

Freedom of transfer betweeen commissioned officers of the Metropolitan Army, Striking Force, and Overseas Forces, to be provided for, subject to the exigencies of the public service, and with the proviso that officers of the Metropolitan Army desiring to transfer to the Overseas Forces must in the first instance perform a year's service with a Striking Force unit at home.

A like freedom of transfer to be recognized as between the Home and Overseas Establishments of the Fortress Troops.

**Staff Organization, etc.**

Staff organization to be generally upon the lines at present obtaining. The Royal Military College, Sandhurst, to be merged with the present Staff College at Camberley, the whole forming the Staff Educational Establishment, in two grades, the Junior at Sandhurst, the Senior at Camberley.

Admittance to the Junior Grade to be by competitive examination of officers aged under 32 years, and nominated both by their Regimental Commanding Officer and by their Brigadier or other Officer Commanding. The Junior course to be of one year's duration, at the conclusion of which only those officers selected by the commandant of the Junior College would proceed to undergo the eighteen months course at the Senior Establishment.

Possession of a Junior certificate to entitle the holder to such Staff appointments as are at present held by Staff Captains, and to be essential for the command of a regimental unit, but not to entitle the holder to employment in any higher grade of the Staff.

Holders of Junior certificates, when reaching the position of Second-in-Command of their unit, to undergo a six months Staff Refresher Course at the Junior College, previous to assuming the command of their unit.

Junior and Senior Staff Colleges to be established in India, with courses of instruction and certificates similar to those at home.

**War Office Organization, etc.**

War Office organization to be generally similar to that at present obtaining, but a Commander-in-Chief to be appointed (not as a political appointment), with general command over all Forces within the United Kingdom, or despatched therefrom for the conduct of military operations, and of all Forces oversea except those within the East Indian Command. The Commander-in-Chief to be President of the Army Council, to control all Educational Establishments, the Inspections Department, and to exercise the principal Command in the event of war *within the United Kingdom.*

The Minister of War (a political appointment) to be a Field-Marshal or General, Senior in rank to the Commander-in-Chief, nominated by the Premier with the approval of the Sovereign, and appointed in principle for a term of five years. This Minister to be entitled to a seat in both Houses of Parliament for purposes of debate, presentation and explanation of Estimates, etc., but not to be entitled to a vote in either.

**The Committee of Imperial Defence.**

This Committee to be maintained on a permanent basis, with adequate secretariat, as a Consultative Committee during peace. The Members to include, the Premier (as President), the Secretaries of State for (1) Foreign Affairs, (2) The Colonies, (3) India, The Chancellor of the Exchequer, The First Lord of the Admiralty, The First Sea Lord, The Minister of War, the Commander-in-Chief, with such other Officers or Officials as might from time to time be required to attend.

**The Superior War Council.**

A new Executive Department, to be styled "The Superior War Council" to be constituted on the imminence of war, and charged with the executive control of both Fleet and Army. The *personnel* of this Council to include only the following:—The Premier (as President), The First Lord of the Admiralty, The First Sea Lord, *The Director of Naval Operations, The Director of Naval Intelligence* (the two latter in attendance upon the Lords of the Admiralty), The Minister of War, The Commander-in-Chief, *The Chief of the Imperial General Staff*, and *an Officer representing the Indian Commander-in-Chief* (the two latter Officers in attendance upon the Commander-in-Chief).[1]

It is only by the installation of such a Central Control that the co-operation of Fleet and Army, the co-ordination of naval and military operations, can be assured.

**Application of the Compulsory Principle to the Navy.**

It has already been suggested that the Navy will prefer to rely, as long as possible, and as far as possible, upon the methods of entry to which it is accustomed, *i.e.*, to voluntary engagements contracted at an early age. It has also been suggested that the greater recruiting demands of an enlarged Navy, and the changed conditions of sea-service, may in the near future occasion a shortage of voluntary engagements.

There is no reason for supposing that the adoption of a Universal Compulsory System will affect Naval Recruiting prejudicially. On the contrary, there is every reason to suppose that it will actually favour voluntary engagements, and postpone the predicted shortage, whilst, should that shortage actually

[1] The above was written previous to the recent reorganization of the Admiralty.

occur, or should the Navy experience any marked falling-off in the fitness of its voluntary recruits, the power of compulsory recruiting is at hand awaiting merely application.

## PROBLEMS CONNECTED WITH PROJECTED SCHEMES OF SELF-GOVERNMENT FOR COMPONENT PORTIONS OF THE UNITED KINGDOM.

With these matters an Officer is concerned only in so far as they affect, or may affect, the Military Forces, or the Military System.

Hitherto, the racial differences and racial characteristics of the component peoples of the United Kingdom have merely served to favour emulation between the military forces and units which are recruited, wholly or only principally, from each.

Of late years, however, there has been something approaching a recrudescence of what may be termed "*acute nationalism*," founded in the main upon political prejudices (which may or may not be laudable), and fostered by methods which are, at least in part, artificial. These symptoms have culminated in demands for self-government, and have given rise to a set of conditions which cannot but influence, and that most potently, our position as a Military Power.

It appears impossible that this influence, or these conditions, can operate in the direction of *strengthening* our military position, or enhancing the unity of our Forces. From the purely military standpoint there is every reason to fear the contrary.

The subject is one which cannot be dismissed as unworthy of notice, whilst at the same time it cannot, for the purposes of this Essay, be considered at any length.

Suffice it to say that it seems essential that the foundations of the New System should be laid *prior to* any grant of self-government, and that the control of all military administration (including the civil machinery connected therewith) should be retained by the Imperial Parliament. We should be unhappily situated, indeed, were we to experience the difficulties which, for example, characterize the military relations between Austria and Hungary in the Dual Monarchy.

## FINANCE.

It is all but impossible, failing access to the actuarial and statistical Records and Estimates of a War Office, to put forward any precise ideas as to the financial effects of the foregoing proposals. Certain proposals will be noted as involving increased expenditure, others as permitting a decrease. To analyse these proposals, and their probable effects, would require space which is not on this occasion available.

Broadly speaking, it is proposed to increase slightly the *paid establishments* of the Army, abolishing the inefficient unpaid (or partly-paid) formations characteristic of the Voluntary System.

These latter, however, are, despite being only "partly-paid," costly both actually and relatively, and increasingly costly at that.

The pay of professional Officers is increased, that of non-professional compulsorily-recruited rank-and-file reduced.

Increased expenditure is invited for Military Education, both preparatory and otherwise, and for Reserve Training. On the other hand, the cost of changes of station, reliefs, etc., is materially lessened.

The cost of the Manufacturing Departments may be assumed not to vary. If any change resulted, it would probably be in the direction of a decrease rather than of an increase.

Under the head of Accommodation and Works, a considerable initial expenditure would be involved, which would be partially off-set by the disposal of many Barracks, etc., unsuitable, or unsuitably sited, for the Forces of the New System.

Little or no reference has been made to the subject of Pensions, or Non-Effective Charges, which would clearly be reduced materially in respect of the rank-and-file, and possibly increased somewhat in respect of the commissioned ranks, service in the Reserve formations being, however, exacted as a condition of grant for the latter.

Increased provision would be necessitated for the horseflesh of the New Army. This is a matter long overdue, even as regards our present Forces.

The cost of purely sedentary troops, and of fortifications and works of passive defence, would be much reduced.

The realization of uniform equipment and armament would call for a considerable initial expenditure, which again might be offset in part by the disposal of serviceable but older-pattern arms, etc., to the Dominions.

Many Staff and Administrative posts, especially those connected with District organization and the Territorial Forces, would be abolished. The War Office Vote would assuredly be much diminished, in sympathy with a simplified organization.

Finally, little or no mention has been made of the Auxiliary Services of the Army, either as regards establishment or organization, because of the deep-rooted conviction that for the purposes of this Essay the constitution of the *combatant* elements of the Army is incomparably the more important, and that once this is decided there need be no difficulty, financial or otherwise, in devising the least expensive and the most efficient Auxiliary Services, in strict conformity with the war requirements of the Army as a whole.

If a figure must be mentioned, it will be stated without more ado that the proposals herein contained ought not to involve an addition to the Army Estimates of more than £1,500,000 *per annum* at the outset, with a genuine prospect of future reduction.

## THE LOSS OF THE "TITANIC."

The Admiralty issued directions on the 20th ult., that Divine Service on board H.M. ships in Home Ports on the Sunday following (21st April) was also to be a Memorial Service for those who lost their lives in the foundering of the "Titanic."

During the service the flags in H.M. ships were half-masted as a mark of respect to the memory of the officers and men of all ranks and ratings of the British Mercantile Marine and others who were drowned, and to their good and seaman-like behaviour after the accident had occurred.

The President of the Russian League for the Renovation of the Fleet has conveyed to the Secretary of the Royal United Service Institution, through the Imperial Russian Consul-General in London, the deep sorrow of the League for the terrible disaster of the awful loss of the "Titanic," its sympathy with the bereaved and its admiration for the brave who did their duty in helping the women and children to the boats without being afraid to die.

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## FRONTISPIECE OF APRIL JOURNAL.

### A HERO OF FONTENOY, JOHN CAMPBELL.

*We have received from Sir Duncan Campbell of Barcaldine the following interesting communication concerning the subject of the Frontispiece in the April Number of the* JOURNAL.

Permit me to point out that, though a private, John Campbell was a gentleman of ancient lineage. The Campbells of Duneaves were Cadets of the Campbells of Glenlyon, who descend from Archibald, who was provided to the fee of Glenlyon, Charter 1502, second son of Sir Duncan Campbell II., of Glenorchy, who fell at the battle of Flodden, 9th Sept., 1513, by his first wife Lady Margaret Douglas, fourth daughter of George, Fourth Earl of Angus.

In the Military History of Perthshire, edited by the Marchioness of Tullibardine, p. 57, is given "An anecdote, illustrative of the mingled pride and simplicity of the Highland character, is related of some men of the Black Watch while on their first visit to England. The King had never seen a Highlander at close quarters, and as he expressed a wish to do so, three men—a Grant, a MacGregor (called Gregor the beautiful), and a Campbell of Duneaves—gentlemen privates, distinguished for their good looks and their proficiency in Highland accomplishments, were selected by their officers to appear before his Majesty, and sent to London some time before the regiment marched south. Grant died before leaving Scotland, but MacGregor and Campbell—in the great gallery of St. James' Palace, before the King, the Duke of Cumberland and General Wade—displayed their native dexterity in the broad-sword exercise, and that of the Lochaber axe. So pleased was the King with their performance, that he gave them each a guinea, which they in turn *gave to the porter at the gate as they went out.* 'Doubtless' they said 'the King had mistaken their character and condition in their native country.'" I may mention that I recently purchased a similar print with "James" instead of "John" Campbell underneath. Of this family was descended the late Lieut.-General Sir Archibald Campbell of Ava, Bart., G.C.B., born 12th March, 1769, third son of Captain Archibald Campbell, nephew of John Campbell of Duneaves, by Margaret, daughter of Captain James Small.

# THE NEW TRANSPORT SYSTEM: ITS PRINCIPLES AND THEIR APPLICATION.

By Lieut.-Colonel E. E. Carter, c.m.g., m.v.o., *p.s.c.*, *e.*, Army Service Corps.

On Wednesday, March 6th, 1912,

Major-General F. S. Robb, c.b., m.v.o., in the Chair.

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## SYNOPSIS OF LECTURE.

### Introduction.

The necessity of a new transport system due to the introduction of mechanically propelled vehicles.—A new organization can only be issued in the form of establishment tables.—How it had to be justified.—The new system removes difficulties of cumbersome echelons of horse-drawn wagons.—It relieves Divisions of responsibility and places maintenance of the army more under I.G.C.

### Some General Principles.

There are three distinct phases in a campaign under modern conditions:—

(*a*) *Period of Concentration.* Relatively little difficulty to be anticipated.

(*b*) *Period of Strategic March.* Most difficult period.—The links in the Line of Communication.—Resumé of new system in detail.—Difficulties in dealing with two Divisions on one road.—How difficulty of feeding cavalry in front may be overcome.—The position of the Divisional Trains on the march.

(*c*) *Period of the Battle.* Troops being almost stationary, system can work more normally.—Supply of ammunition.

### Reserve Parks.

Their objects.—Why they are of horse-drawn vehicles.—Some of their principal uses.

### Available Rations.

The new system enables troops to live on fresh meat and bread.—Criticism as to apparent lack of foodstuffs answered.—Reason for French and German Armies carrying more food with units.

**Staff Duties.**

*The Necessity for Co-ordination of Work.*

(a) Duties of General Headquarters in respect of services of maintenance.—These must be considered in deciding on strategy to be adopted.—Also after an indecisive victory.

(b) Army Staff.—Duties of A.Q.M.G..—Rendezvous, with time of arrival of lorries to be notified as long before as possible. —Duties in relation to formations in front.—The status of Mechanical Transport Units to be recognized, and the use of the elasticity of system.

(c) Divisional Staff Duties.—Brigade Staff Duties.—Selection of Refilling Points.

(d) Duties of I.G.C.—Protection of Maintenance Services. —Duties of reconnaissance up to Rendezvous.—Locality of office of I.G.C.—The Duties of his principal Staff Officers.— The responsibility of the A.Q.M.G. L. of C.—His principal assistants.—The Advanced Base under modern conditions.— Necessity of proper means of communicating information between Rendezvous and I.G.C.

**Conclusion.**

The necessity of Staff Officers being trained to recognize that the success of the new system is dependent on their knowledge of principles and how their duties must be co-ordinated.

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## INTRODUCTION.

IT is now over six months since the details of the new transport organization were first issued and consequently some apology is necessary for introducing the subject for discussion this afternoon; more especially as officers of all branches of the Army, and Staff Officers in particular, were to some extent able to acquaint themselves in theory with the system during the summer of last year, when it became known that a practical test was to be made during Army Manœuvres.

Such apology, however, must be based on the fact that when so important a change in our organization is introduced, it can seldom, if ever, be possible for the authorities of the War Office to issue a sufficiently discursive explanation of the broader principles involved; and in consequence officers, as a rule, have to make their own deductions by the doubtful method of arguing from the particular to the general. The result, as is usual in such cases, is that the fundamental principles are liable to be obscured through the efforts at mastering reasons for details.

There is perhaps a further reason that may be adduced, of which few are really conscious, namely, that we all are apt to look with suspicion on any new departure, and even when we praise the advantages of the novelty we cling so tenaciously to

the tattered garments of conservatism that there is a tendency to produce a crop of bogeys which are often difficult to lay decorously to rest.

In dealing with the subject it is proposed to reverse the line of argument and endeavour to make deductions by arguing from the general to the particular, without going into the more technical details. With this in view I would ask your indulgence, while I call attention to certain general conditions that govern modern warfare which are pertinent to the subject, because it is on a proper appreciation of these conditions that the harmonious working of the system depends—a system in which every Staff Officer, as well as every unit, is vitally interested and one that must not be considered as dependent on the unaided efforts of a single branch of the Army, namely, the Army Service Corps, for adequate interpretation and success.

In the first place we shall all be agreed on the universal truth of the platitude that recent inventions have had an enormous effect on the conduct of war. All recognize that repeated improvements in modern weapons and machines of every kind have produced, and will continue to produce, changes in the tactical handling of troops. We acknowledge also the far reaching effects caused by the existence of railways in civilized countries in respect to the movements of the large armies of the present day, to say nothing of their importance in the consideration of political and strategical situations. But it is only recently that the introduction of mechanically propelled vehicles of a reliable type has compelled us to take notice of a new factor in warfare—a factor which has as distinct and direct a bearing on the solution of the strategical problems as the improvement of firearms has on the solution of tactical problems.

Consequently it became the duty of the authorities of the War Office to decide how best this new factor could be used and how its fullest value could be obtained when employed in combination with the older methods of transportation, namely, horse-drawn vehicles and railways.

As in all other cases where a fundamental change has to be made, it was necessary to produce a totally new organization, in which efficiency must be the obvious desideratum, while it was imperative that the advantages over the old system had to be clearly and definitely stated in order to justify the expenditure of large sums of public money. At the same time it was necessary to make the fullest use of existing stocks of mobilization equipment, distributed in buildings that could not be moved to new localities so as to meet the strict requirements of the changed organization. These points are specially referred to in order to call attention to the apparent juggling with the regimental transport (hitherto known as second line transport), between the Divisional Trains and the units of the formation to which these Trains are allotted. This manipulation of the existing equipment held by units involves, however, a principle not so easy to recognize. The experience of the 1910 Manœuvres, when the old system was fully tested by one of the contending

armies, revealed the indisputable fact that regimental transport, composed as it then was of both first and second line, with each part marching as a rule independently, could not adequately be supervised by the Infantry Units which constitute the bulk of the army. The units had, to a regrettable extent, to take from their ranks men experienced chiefly in the use of firearms to act as drivers, for which rôle they could only be partially and spasmodically trained. The solution, therefore, lay in utilizing the drivers of the Army Service Corps under the supervision of officers trained in transport duties and horsemastership, in order to remove the anomaly as well as to enhance the efficiency of the second line transport. At the same time a slight increase in the first line transport of cooking wagons (or "cookers") and water carts enabled the unit to be fed quicker than formerly was the case, when these vehicles were relegated to an order of march that might easily place them far behind. In this respect the units would be the gainers in the long run.

The next important difficulty that had been recognized was that the length of a Division on the march was largely due to the cumbersome echelons of Supply Parks and Divisional Ammunition Columns, which must necessarily be such a distance in rear of the fighting troops that the Divisional General would frequently be ignorant of their exact whereabouts, and seeing that they were under his direct command, he would be constrained to consider their safety by giving them adequate protection with escorts, thereby proportionately diminishing the fighting powers of his formation. The new system materially alters these adverse conditions and reduces the immediate impedimenta of the Division by the relegation of the old second and third echelons of supply to the sphere of the Inspector-General of Communications. The Divisional General is thus relieved of a responsibility and anxiety which, under the old system, could not fail to affect his arrangements for the movements of his Command. On the other hand the functions of the Lines of Communication are modified by reason of the fact that communications are no longer lines terminating at a well-defined point or points on a railway system, but are extended on a more elastic basis to road points, varying day by day, and known as "Rendezvous," between which and "Railhead" the Mechanical Transport is to form the link. Consequently on the Staff of the Lines of Communication must now devolve measures of protection of a more extended character than was formerly the case, in addition to more complex and extended duties of administration.

Following on this comes the all important consideration of the problem of harmonizing the functions of the several Staffs of the Army in the Field, namely, General Headquarters, Army Staffs (when our divisions are organized into two or more armies), the Divisional Staffs and finally that of the Lines of Communication, all of whom have *pro rata* to deal with the problem of supply of food and ammunition in such a manner as to render the executive work of the Army Service Corps

possible and punctual. In other words, the relationship in this respect between the various Staffs and the executive services, of which a modern army is composed, must be fully appreciated by those whose duties compel them to direct, or assist in directing, the details, or a situation will be created similar to, though not identical with, that of a battery of artillery, armed with a weapon of great possibilities, but with a commander and gunners who have not been trained to understand what those possibilities are. The difference between the two cases, however, lies in this fact, that while in the battery the direction of the fire centralizes mainly in one individual, in the working of this new system of Transport the direction must be decentralized and exercised in detail by many individuals of varied capacity and varying appreciation of similar duties. Thus it will be seen that while the executive duties of the Transport Service are in many respects simpler in detail than before, administration has become more complicated and demands wider appreciation of technical difficulties as well as systematic and careful co-ordination with the movements that are necessary to carry out the intentions of the General Commanding-in-Chief.

## SOME GENERAL PRINCIPLES.

It will be universally admitted that, when deciding on the solution of any strategical problem in modern warfare, the Commander-in-Chief will be guided primarily by the necessity of crushing, as completely as possible, the principal armed resistance of his opponent with a view to placing him in a position of inferiority, moral and physical. In the operations necessary for the attainment of this end, there would seem to be three distinct phases which must be recognized. These are:—

(1) *The period of concentration,* when the army or armies collect from their places of mobilization, or (in the case where they have to cross the seas), when the fully mobilized units concentrate by the shortest routes, whether railway or road or otherwise, in the area whence the first advance is to take place.

(2) *The period of the strategical march,* which will often be overlapping the period of concentration. During this advance it may be assumed that, at first at any rate, each army is moving in relative security, but the advance is nevertheless steady day by day, though unlikely to be continuous for more than five or six consecutive days.

(3) *The period when the enemy is encountered* and the shock of battle given and received.

It is during these phases of a campaign that the services of maintenance vary in their method of execution, and for our purpose it is proposed to examine them in some detail.

## (1) PERIOD OF CONCENTRATION.

In the first period, that is, the concentration period, the supply of food should present relatively little difficulty, because

presumably the army, in its position of security, will be able to exist both from what it can procure in its immediate neighbourhood and from what can be brought to it by railways or waterways that lead into the area. Throughout this period it is conceivable that the Divisional Trains should be almost entirely capable of forming the connecting link between the units and temporary field and railway depôts in the vicinity of the troops, while the supply services in rear are mainly devoting their attention to the establishment of the proper reserves that have been ordered for the Advanced Base and on the Lines of Communication. Also the Mechanical Transport during this time will be collecting probably by road, and getting ready to link up, first, the Advanced Base and subsequently "Railhead" with the horse-drawn vehicles of the Trains.

It is perhaps as well here to point out that the question of ammunition supply hardly comes into consideration, except possibly in the case of the independent cavalry, and it may even be expected that the supply from the Park can often be as readily sent by rail as by other means and delivered direct into the Divisional or even Brigade Columns.

### (2) PERIOD OF STRATEGIC MARCH.

It is, however, when we come to the second, or strategic march, period that the real difficulties of administration begin to occur, and these difficulties are found to increase proportionately to the distance covered by the advance. But in order to overcome them it is well to remember certain important factors that affect the intelligent use of our new organization for the Transport and Supply Services in the Field.

Assuming that our army is organized with a view to operations in a highly civilized and thickly populated country, a cursory glance at any map, say, of Western Europe, will show a network of railway lines so close to one another that the full distance between them would almost invariably be well within the radius of action of modern mechanical transport. It will be found also that these railway lines will generally follow a direction similar, and more or less parallel, to the main roads that were the earlier means of communication between important centres of population; further that just as several roads frequently converge on these centres, so railway lines converge and intersect each other in a similar manner. Again, at intervals, more or less coinciding with railway stations, lateral roads joining railway lines with the main roads are certain to exist, and although these may have to be classified as second or even third grade, their condition as a rule will not be found to present insuperable difficulties to the passage of mechanical transport, because in the very nature of things, they are the subsidiary arteries for bringing the products of the district to the railways.

Now it is clear that an army advancing through such a country will as far as possible utilize the *main* roads for the bulk of the troops, and during the march will be parallel to, or astride of, the railway lines, using the lateral roads only for purposes of communication between the several columns. This fact, therefore, becomes at once important in the use of Mechanical Transport in connecting up railways and the fighting troops, and attention is particularly drawn thereto, because there is a tendency to think that the maintenance of an army must always and invariably be by the identical road or roads along which the fighting troops themselves have advanced and by no others. The favourite instance that is adduced is the case where two or more divisions are advancing on one road and the consequent difficulty of getting the supply columns past the rear divisions to the front. It is contended that, in a very large number, if not in the majority of instances, it will be quite feasible to solve the difficulty by selecting as "Railheads" points on the line (which it is fair to assume at this period is intact) that are not only sufficiently near to the troops to be secure from attack, but will permit the Mechanical Transport Supply Columns to use these lateral roads to reach the bivouacs or cantonments of the Divisions marching on the main roads.

In a similar manner the ammunition carried in Mechanical Transport can be dealt with, but the difference between the two lies in the fact that, while food is required daily, ammunition in large quantities is not required during this period except for the independent cavalry.

A concrete case would doubtless be the best means of considering the points I have mentioned, but the limits of a lecture preclude this and the consideration of a specific case can be best handled in the course of a Staff tour.

I should here like to give a brief resumé of what may be described as the theory of the system.

The accompanying diagram has been prepared to show the simplest form in which a single Division marching on one road would be fed daily with fresh meat and bread. It will be seen that the Advanced Base is considered as the source of supply, and provisions are sent by rail thence to the point known as the "Regulating Station." From there the railway trains are despatched to "Railhead," and this may be taken as the farthest point on the line, to which they can be consigned with due regard both to safety and technical railway considerations. This point will usually be a station, but not necessarily so, as circumstances may compel the transfer of train loads by means of improvised platforms.

So far it may be assumed that the supplies are packed in bulk by Divisions, as it is doubtful whether the Supply Officers at the Advanced Supply Depôt will have sufficient knowledge of the actual requirements of Brigades to load the trucks accordingly. It is therefore at "Railhead" that we must generally expect that the first distribution by Brigades and Divisional

Troops will be made into the lorries of the Divisional Supply Columns, which should be waiting to be loaded. In theory this transfer should take place during the late afternoon or early evening of each day, so that the lorries may be ready to move at any hour the following morning.

From "Railhead" the Supply Columns proceed direct to the "Rendezvous" points. Up to and including these latter points the Inspector-General of Communications is solely responsible, but the settlement of the "Rendezvous" day by day, together with the times that the Columns are required to arrive thereat, must rest with General or Army Headquarters and should usually be decided on and even notified thirty-six hours before, both to the Inspector-General of Communications and the Divisional Commanders.

At the "Rendezvous" point the Column is met by a representative of the Division concerned and taken by the shortest route to the "Refilling point," where the next transfer of loads takes place, namely, from the lorries to the horse-drawn wagons of the Supply Section of the Divisional Train. Theoretically, and as a general rule practically, this point may be considered as the most advanced billets or bivouacs occupied by the Division on the previous night. It is here that the Divisional Train can best collect on the road ready to follow in the wake of the fighting troops, who necessarily have started at an earlier hour.

It follows from the foregoing that this "Refilling point" marks the farthest point reached by the Mechanical Transport, and its selection is partially dependent on the radius of action of the lorries, seeing that it is laid down that this distance should not be greater than about forty-seven miles from "Railhead." It is also necessary to observe that, as the "Rendezvous" marks the limit of the authority of the Lines of Communication, the "Refilling point" should only be as short a distance as possible in front, say about seven miles, except in the case of the Cavalry, when it is conceivable it may be greater. Thus the selection of this point becomes of special importance, and must be made by the Staff with due regard not only to the position of the troops on the road and the time of marching, but also with reference to the facilities for rapid transfer of loads from the lorries and the early release of the Mechanical Transport. The choice can but seldom be made solely by a map, and personal reconnaissance by the Officer of the Train, who is eventually to go to the "Rendezvous" to meet the Supply Columns, is a necessity. The chief reason for this is, that the distribution of the supplies to the units' wagons of the Train should be carried out concurrently with the transfer, and confusion must ensue, unless the locality is reasonably favourable and some definite plan is in the mind of the Officer of the Divisional Train responsible for the supervision of the work.

Yet another point must be borne in mind by the representative of the Quartermaster-General on the Staff of the Division,

namely, the removal of sick and wounded. If the Mechanical Transport is to be made use of at all for this purpose, the sick must be at the "Refilling Point" and the lorries under no circumstances should be required to go any further distance for purposes of collection, seeing that the maintenance of a regular system of supply depends entirely on the maximum of punctuality of delivery being attained.

In connection with this question of punctuality it is important here to consider the ideal that should be aimed at in timing the arrival and departure of the several connecting links in the system. It is obvious that we must work backwards from front to rear, because the first consideration is to keep the Divisional Train as close to the units of its formation as possible and in its proper order of march as an integral part of the Division. It being assumed that the Division will march in the early morning, the Train should be ready to follow about 10 a.m. Hence this is the hour by which the Supply Columns should have arrived and emptied their loads into the wagons.

Consequently the departure of the lorries from "Railhead" must be timed to admit of this. It follows, therefore, that the loading of these lorries from the railway trains will have to be completed either during the previous evening or night, and the detailed arrangements to admit of this necessitate the utmost care on the part of the Staff of the Inspector-General of Communications. This is the ideal, but all are aware how many unforeseen events must frequently occur to prevent its being carried out. Still if the ideal is understood, many difficulties that might occur in connection with railway traffic management can be avoided by adequate prevision. This point it is proposed to elaborate later in dealing with the duties of the Lines of Communication Staff.

Thus far we have dealt with the two principal echelons of transport under the immediate control of the Army Service Corps, and therefore the final stage, whereby the food for consumption the next day is issued to the units, demands attention. Assuming that the Supply Section of the Divisional Train has been loaded on a unit basis at the "Refilling Point," the last difficulty to be overcome is in getting the wagons to the units as quickly as possible in order that the men and horses of the Train may have sufficient rest during the night. This problem is one that mainly concerns the Brigade Staffs, on whom the responsibility must rest for giving the earliest information to the Transport Officer of the Brigade of the exact locality of each regiment, battalion, or artillery brigade. It may generally be assumed that a Commander will, under normal conditions of a fifteen mile march, arrange for his troops to march in the morning at such an hour as will enable the leading units of the Division to reach their cantonments about noon, and, unless there is some special reason to the contrary, probably the remainder of the Division will also bivouac or billet in the immediate vicinity of their positions on the road at that hour.

The Brigade areas will have been allotted by the Assistant Quartermaster-General of the Division, but it will rest with the Brigade Staff to allocate the situation of the units and communicate the details to the Transport Officer of the Train. It is admitted that Brigade-Majors single-handed will find considerable difficulty in carrying out this duty quickly, and it becomes a question for the Brigadier to give such assistance as may be necessary. At the same time the transport officer will have to do his share by sending forward a representative to obtain the allotment of the unit areas. In any case some normal system of communication on this point is imperative, and it is for the Divisional Staff, following the general principles in Field Service Regulations, to lay down in their Standing Orders how this should be effected.

So far, the simplest form of regular maintenance of supply during the strategic march period has been considered, namely, when one division only is marching on a single road without any other troops in their rear who have separate trains of horse-drawn vehicles. Let us now turn to the more difficult problem, presented by the Cavalry Division which invariably is ahead, and can only be reached by a safe passage for its Supply Column being provided under the protection of, and even through, one or more Divisions in its rear. I am aware that this has formed the subject of much argument and comment, and the tendency is to say that it presents such difficulties as to make it almost impossible to carry out the service with regularity. In reply to such pessimism I would again point out that a recognition of broad principles affecting the problem will materially aid in its solution.

In the first place, the particular rôle of the Army, in front of which the Cavalry Division is operating as independent cavalry, must be taken into account. We must satisfy ourselves as to whether the Army is operating on the flank or in the centre of a group of Armies. If on the flank, it is obvious that the protection necessary in this direction must be derived either from some well-defined natural or artificial barrier or from the disposition on the march of the troops themselves. In the former case it is reasonable to suppose that the roads running parallel to such a barrier will be fairly secured by the use of comparatively small flanking detachments, so that the general route to be taken by the fast moving lorries of the Cavalry Supply Columns and Ammunition Park will be more or less obvious, while in the latter circumstances, if the flank is *en l'air* the artificial protection that must be supplied by the position of formed bodies of troops should of itself be sufficient to minimise any risk to the Cavalry Supply Column. In other words, it seems reasonable to argue, that as a general rule the outer flank will be the more likely one to be used for connecting the railway with the cavalry by means of Mechanical Transport, both as regards security and also with regard to the probability that it is to this flank that the Cavalry will have to clear the

front of the army, when contact with the enemy takes place. A further and not unreasonable deduction can also be made from these premises, namely, that the Divisions of the Army are unlikely to be so disposed as to place, at any rate at first, more than one Division on this outer flank. An objection may be raised to this by saying that the *inner* flank should be safer and shorter because of the relative position of the next Army in the group, but as regards safety it is obvious that if the distance between neighbouring Armies is great, there is always the possibility of the enemy interposing a force and so threatening the line of supply, while in respect of shortness of journey the roads are more likely to become congested as the two armies converge towards each other to meet the enemy, and the advantage of rapidity of transit by the lorries will be lost.

In any case, it is as well to bear in mind the speed at which lorries can travel on a fairly clear road, and it does not seem in the least unwise to argue that, short of the enemy being able to prepare an effective ambush on the route, lorries, although vulnerable when hit in a vital part of the machinery, will take a good deal of "catching," and risks can more confidently be run with this form of transport than with the former slow moving and cumbersome horse-drawn echelons of supply wagons.

To turn to the other case, when the Army is in the centre of a group of Armies converging on the point of contact with the enemy. Here at once we are faced with the problem of supplying more than one Division on one road, irrespective of whether it is the Cavalry or other Division. I have already indicated that there may be expected to be many occasions when the proper distribution and allotment of "Railheads" will particularly assist, so that lateral roads may be free for the Supply Columns, but it is admitted that there will be repeated instances when at any rate some of the main routes of advance will have to be used, and a portion of the area, in which the rear Division is halted, must be traversed by the Supply Columns containing the supplies for the formations nearest the enemy. Now it is obvious that Mechanical Transport fleets cannot normally be expected to pass troops on the march, nor in fact until the latter have been moved off the road into their billets; also we have seen that, assuming an early start in the morning, the day's march of the Divisions should be completed about noon; hence it follows that the Mechanical Transport for delivery of supplies to the foremost Divisions cannot begin to pass similar formations in rear till, say, two hours later, and then it will have a distance of about seven to nine miles to do to be clear of the head of this Division. This will bring them to the "Refilling Point" about 3 p.m., and the selection of this point becomes dependent on the march orders of the Commander-in-Chief, and naturally must be a point immediately in front of the head of the rear division. A modification therefore of the principles laid down above (namely, that the

transfer from Mechanical Transport to Wagons should take place about 10 a.m.) is a necessity; but a moment's reflection will show that this does not really impede the march of the Divisional Train of the leading Division. The normal arrangement in this case will certainly be to keep the Train with its own Division when at a distance from the enemy, and it will halt immediately in front of the head of the rear division until the arrival of its Supply Column. In other words, the Train of the leading Division will start empty and be refilled during the afternoon for the purpose of almost immediate distribution to the units. In this way the Divisions remain complete with their Trains and there is no need for confusion or the mixing up of the horse transport of two formations.

In connection with this there are two main criticisms to the solution given above, and perhaps I may be permitted to refer to them. The first is, that it is open to objection that the rear Division should have the Train of the leading Division immediately in front of it, owing to the possibility of the fighting troops being hampered if suddenly required to advance. The answer is that considering a Train [1] occupies at the most a length of just over a mile, even when in one column of route, if circumstances demanded its being passed, the obstacle to movement need not be considered an insuperable one, and, if the Division is on more than one road, there is even less ground for anxiety. On the other hand, if we consider the only other possible alternative of marching all the Trains of Divisions using one road together in rear of all the fighting troops, it is obvious that the leading Division will practically never get its baggage, and the horses and men of its Train would soon become inefficient through overwork; also any advantage of using more than one "Railhead" would be nullified.

A second criticism that has been offered is that the Train of the leading Division will start each day empty. There is perhaps a not unnatural desire on the part of the Divisional Staff to have their trains filled *overnight,* that is, to wish that the refill be done immediately after the supply wagons of the Train have emptied the food for the next day's consumption into the Regimental Cooking Wagons. There are several considerations that must be borne in mind to show that the start with empty wagons is really the lesser of the two evils. The chief one is that refilling overnight would mean that the transport horses of the Train would have to remain at work probably till long after dark, thereby shortening their rest and impairing their efficiency, while the Mechanical Transport would invariably have to do the return journey to "Railhead" in the dark; and it is as necessary to consider the crews of the lorries as the horses of the Train, for anyone who has experience of self-propelled vehicles will know that the daily strain of

1 Probably only the Supply Section of the Train would be concerned, and the length of this would not exceed half a mile.—E.E.C.

driving is greater than is generally imagined. Further, the value of rapidity of movement on the part of lorries would be lost by having always to travel through the night, for the speed must be less and the danger of missing roads leading to the newly selected "Railheads" is much increased. It would seem that the desire always to start "full" is based more on sentiment, due to memory of conditions now outgrown, than to an appreciation of the best means of using this new factor in warfare, namely, Mechanical Transport.*

### (3) PERIOD OF THE BATTLE

We will now turn to what I have described as the third period in the campaign, when the opposing forces are in close contact with each other and after the preliminary encounter is over. Practically, at this point, the Armies which have been marching in columns of route are deployed and may be considered as more or less stationary with their impedimenta at as safe a distance in rear as is compatible with the maintenance of supply of food and, in this case more particularly, of ammunition. So far as food is concerned there is no doubt that the delivery must always be from the rear, and that nothing can be counted on as obtainable from the surrounding country. Further, it will probably be found that fewer "Railheads" will be available, owing to the fact that they can be protected only by the presence of troops in front, while lateral communication must be more difficult, if not impossible. In addition, the delivery of food to the units will almost invariably have to be done under cover of darkness; consequently the Trains will be conveniently placed in rear of their respective Divisions, if they are some five to seven miles distant and their localities will for the time being become both the "Rendezvous" and "Refilling Points." Here it is not unreasonable to expect that the normal plan of refilling in the morning should be adopted and undoubtedly desirable, both with a view to readiness to march at any moment in case of advance and also to give as much uninterrupted rest to the horses as possible.

The question of ammunition supply is slightly different as during a battle the consumption is continuous. It must be remembered that the Divisional Ammunition Parks, now composed of lorries, will be full when they started originally from the Advanced Base, and would have been marching by the least congested roads at such a distance in rear of *all* the troops that, during the strategic march, they would be merely mobile magazines—the exception, as already pointed out, being such sections of the Cavalry Park required for the Cavalry Division. This latter, no doubt from the very first, would be performing a

* NOTE.—The lecturer here referred to certain graphics which had been prepared, or were in the course of preparation in the War Office, and which conclusively proved that the operation described was possible.

rôle similar to that of the Supply Columns for the same formation. In order, however, to cope with the large expenditure that must be expected during a prolonged general engagement, it is conceivable that a solution of the difficulty of supply may be found in selecting localities for off-loading the lorries of the leading sections of the Ammunition Parks, and to these localities the Divisional Ammunition Columns could come for replenishment and return at once to the vicinity of the Brigades. In this manner the lorries would be free to return immediately to the railway, though not necessarily to "Railhead," for a complete refill. This, however, is a matter for consideration partly by the Royal Artillery experts, who must decide whether their technical personnel with the Parks is sufficient to admit of this and partly by the Divisional Staff who must say whether the tactical situation will permit or even justify it. The point I desire to bring out here is that, the enormous expenditure of ammunition being admitted, it is possible by some such device as I have suggested to increase the rapidity of supply by taking advantage of fast moving Mechanical Vehicles. In this case there can be no idea of sparing the Mechanical Transport or trying to work to more or less regular times. It is simply a question of the supply being always at least equal to the demand and yet not too excessive as to risk waste by being left on the ground at any rate for a time.

## RESERVE PARKS.

In the pamphlet issued with Army Orders for last month it is stated, that "Six Reserve Parks (Horsed), each carrying supplies . . . are maintained on Lines of Communication for use in case of emergency"; and a foot-note adds, that "these Parks may also be used for the transport of ammunition and stores." Their normal contents are, however, two days' Reserve (iron) Rations and two days' grain, calculated on a divisional basis, with a due proportion for the Cavalry Division and Army Troops. Essentially, therefore, they are Line of Communication units, but a few words are needed to account for their presence in our organization, as I have heard their necessity queried, on the ground that they take up a large number of horses and also that they seem to imply that we have at the back of our minds some doubt as to the reliability of the Mechanical Transport to perform what is expected of it. Possibly the charge of using up so many horses is the more real, but it must be remembered that, assuming for the moment that the contents of these Parks are necessary, if the loads were placed in mechanically propelled vehicles, the chief value of these latter vehicles would be lost, as they would not be worked up to their full capacity; therefore, being only required to move slowly, horses, which would be of a class mainly unsuitable for other arms and yet available on mobilization, are the most effective. But the reasons for having these reserve supplies are

possibly not so apparent. To understand them we must remember that our new system is based on the desideratum of providing fresh meat and bread daily for the troops, while the individual soldier carries only one Reserve Ration on his person. If for any reason this has to be used, there is no immediate means of replacing it, unless it can be obtained from some movable magazine. There is, however, a far more important use to which the bulk of these preserved rations may be put, for the time for their consumption will probably be either after a general engagement, when a forward movement in pursuit would be better carried out if extra preserved rations were available for issue to men and horses, or, when it was necessary to make a sudden movement to a flank, involving a change of the Line of Communication. In this latter case the reserve supplies would give the Line of Communication Staff time to arrange for the change of the Advanced Base or "Regulating Station."

## AVAILABLE RATIONS.

Before passing on to the discussion of staff duties in connection with the system, it is perhaps advisable to direct attention to the quantities of supplies that are available in front of the Advanced Base, as some misconception on this point has occurred which is due largely to a confusion with the conditions that obtained in the obsolete system.

It has been stated that we now have too little food with the Divisions, which may on occasions be called upon to make forced marches to a distance that will outstrip the radius of action of the lorries, and a comparison is drawn with the organizations of other armies in this respect, especially in the case of the French and German systems. Again the objection seems more sentimental than real. It must be remembered in the first place that, so far as France and Germany are concerned, the development of their system of Supply in the Field is in one sense not as much modernized as our own, for the following reason, namely, that their local resources in mechanically propelled vehicles are relatively not as great as ours, and that the size of their armies is out of all proportion to the number of vehicles obtainable in their respective countries. This being so, it is more incumbent on them to have as much food as possible with the units themselves—a fact which necessarily impairs mobility to a great extent.

Under our new system, although the Divisions have under their immediate control apparently a less number of days' rations than formerly, the extension of the sphere of the Lines of Communications places them in precisely the same position as regards quantities as before, while it introduces an almost practical certainty of feeding troops, marching day by day continuously, on fresh bread and meat; and it is contended that this would have been very doubtful under our recently discarded

organization. As a matter of fact the appreciation of the advantages of the new system mainly depends on the amount of reliance we place in the capabilities of our fleets of lorries, and the practical working of the system is contingent on what may be called the traffic management of the Line of Communication, in which I include not only railway traffic management, but also the management of the Mechanical Transport working in connection with the railways.

## STAFF DUTIES.

We now come to the discussion of what may be said to be the most important branch of the subject, namely, the co-ordination of the duties of the various Staff Officers on whose shoulders must lie the responsibility for success or failure of the system.

In dealing with this question it may be assumed that we shall have the following Staffs to consider:—

(1) General Headquarters.
(2) Army Staffs (of two or more armies each composed of two or more Divisions).
(3) Divisional Staffs.
(4) Lines of Communication Staff.

To General Headquarters, whose orders to Army Commanders must necessarily be in the broadest terms, the allotment of areas for the advance will certainly be made with careful reference to the Line or Lines of Communication in rear of each. As already indicated, the harmonizing of the line of railway with the routes of advance against the enemy will have been considered concurrently with the strategy to be adopted. This portion of the work of the General Staff will no doubt have been thought out even before the force has mobilized, but attention is called to it because in each successive stage of a campaign the operation will have to be repeated, until the armed resistance of the enemy is completely broken, and it will certainly recur after an indecisive victory has been gained. In this latter case the most urgent need is early and accurate information as to the condition of the railways recently in the hands of the enemy, and it will be from this information that probabilities and possibilities can be gauged. The closest touch is requisite with the Inspector-General of Communications, and it is conceivable that his presence may, in the initial stages, be necessary at General Headquarters in order that the plans of the Commander-in-Chief may be carefully explained to him, with a view to provision for the future being made and an estimate of requirements obtained.

Should the Cavalry Division be employed as a whole and not allotted in proportion to the Armies, to the Staff at General Headquarters will fall the duty of deciding on the route or routes by which its services of supply of food and ammunition

are to be maintained, and these must be communicated not only to the Inspector-General of Communications but also to Army Commanders, in order that roads may be cleared to admit the passage of the light lorries through the Divisions in rear. As an alternative, and probably the more usual course to be adopted, for purposes of administration only it may be better to allot portions of the Cavalry Division to each Army Staff and Cavalry Brigade Commanders may be permitted to communicate their proposals as to "Rendezvous" points to the Army Staff to which their Brigades were attached.

On the Army Staff, however, will devolve the duty of intimating to the Inspector-General of Communications the "Rendezvous" and times of arrival for the various Supply Columns. For this purpose the representative of the Quartermaster-General's Branch on the Staff should endeavour to allot the "Rendezvous" points if possible thirty-six hours ahead and communicate these to the Divisions and other formations of the Command as well as to the Inspector-General of Communications. At the same time it would be necessary for the Assistant Quartermaster-General of the Army Staff to inform the Inspector-General of Communications as to any roads that would *not* be available for the movement of Mechanical Transport, and also any points on the Railway which could *not* be used as "Railheads." The reason for such negative information is that the Staff of the Lines of Communication, being responsible for the detailed reconnaissance of all railways and roads up to the "Rendezvous," the officer making such reconnaissance should be as little limited as possible in his selection and should have as much time at his disposal as can conveniently be given him.

The foregoing is based on the assumption that lateral roads are sufficiently convenient and secure to admit of being used by the lorries. If, however, the route of the supply columns must be entirely by the road on which two Divisions are advancing, again the selection of the "Rendezvous" for the leading Divisions or formations should be as indicated earlier in this paper, namely, at a point immediately in front of the head of the rear Division.

It is important in connection with these duties for both General Headquarters and Army Staff Officers to recognize very clearly the status of the Supply Columns and Ammunition Parks composed of motor lorries. The allocation of these units now to the Lines of Communication was not only for the purpose of relieving the Divisions of impedimenta, but also in order that their employment may be capable of greater elasticity than was possible under the old system. In other words, Supply Columns and Ammunition Parks are now capable of being diverted in any direction in accordance with the situation, without in the least interfering with the internal organization of the Divisions. The exceptions of course are the Cavalry Division and Army Troops Columns, which are and must be

special to those formations. For these reasons it is incorrect to assume that, because initially No. 2 Divisional Supply Column may deliver food to the 2nd Division, this allotment will never be changed throughout the campaign. The best instance that can be taken of this is when a wheel to a flank is ordered, combined possibly with a change in the railway portion of the Lines of Communication. It is obvious that, in order to avoid confusion and unnecessary crossing of routes an immediate reallotment of Supply Columns will minimize the difficulty and tend to re-establish punctuality in supply on the outer flank of the Army. With this object in view it has been suggested that Divisional Supply Columns shall be loaded at "Railhead" on a fixed basis of numbers, to be altered periodically only, that is, every three, four or even seven days, and under direction from the Army Staff, so that their contents may be available for any Division. In the " Battle period " also this elasticity of the organization may especially be made use of in the case of ammunition, when it may be assumed that heavier expenditure will be incurred on one portion of the field than another. These considerations therefore indicate an additional and highly important duty of the Quartermaster-General's representative on the Army Staff, whose intimate knowledge of the position and probable routes to be followed by the Mechanical Transport is imperative, especially when the first contact with the enemy is gained.

As regards the duties of the Divisional Staff, these are of a more detailed nature and are mainly connected with the transfer of the loads to the wagons of the Divisional Train at the " Refilling Point," and the final distribution to units. The importance of the proper selection of the " Refilling Point " has already been mentioned, but even at the risk of repetition I would urge that the choice of the site should always be the result of the personal reconnaissance of the officer of the Train, who is to meet the Supply Column at the "Rendezvous" and direct its further advance. It is obvious also that it will not, as a rule, be possible for this officer to perform his duty efficiently unless a motor car can be provided for him, and this fact should not be lost sight of in the allotment of cars available in the Division. In connection with the final distribution of the Supplies to units, it is especially necessary for the Assistant Quartermaster-General of the Division to send back to the Officer Commanding the Train the earliest information as to the position of the several Brigade areas, and it will then rest with the Brigade Staffs to arrange for communicating the final detail of the position of units to the Transport Officer of the Brigade or Divisional Troops.

While the foregoing duties of the responsible Staff Officer relate to the Division itself, he must not forget the attention that must be paid by him to those Supply Columns that may have to be passed through his area to the front. In regard to this there seems a tendency to expect that roads, on which troops

are halted prior to going into billets, must always be hopelessly blocked for a considerable time. If the march discipline of the troops is even reasonably good—and I doubt whether any one present would dare seriously to expect it to be otherwise—only on very rare occasions should the *main* roads continue blocked for any length of time. Consequently the delay to Mechanical Transport should not be excessive. Still there are additional precautions that can be taken to relieve congestion by diverting the Columns for short distances, and this may frequently be capable of accomplishment if the Officer Commanding the Supply Column (who has a motor car) came on ahead to take the instructions of the Divisional Staff on the point. In any case the Staff must be prepared to give all possible facilities for passage to and fro, and it is of the utmost importance that they should remember the duty they owe to troops that are ahead. The recognition of this duty will go a very long way towards removing any difficulty that may present itself.

Lastly, we have to consider the effect of the new system on the Staff duties on Lines of Communication. The extension of the area of the authority of the Inspector-General raises the question of protection to the services under his control, and the nature of the Transport adds a further complication. It is obvious that escorts in the usual acceptation of the term are out of the question, owing to the speed which it is expected we shall get out of the lorries. In addition the railway line cannot be ignored, especially as the daily progress of the Army demands that every effort should be made to open up fresh "Railheads." It has already been pointed out that the general arrangement of the troops for the advance will in itself give a large, if not complete, measure of protection; consequently, it seems fair to argue that the only interruption that may be anticipated will be from small hostile bodies or possibly from guerillas, when the advance has reached the enemy's territory. To meet such contingencies the establishment of posts becomes necessary, and it follows that the Lines of Communications will require a system of defence of a somewhat novel kind, each post being of the nature of a flank guard, although this arrangement will not prevent risks having to be taken by the Mechanical Transport. These risks can only be gauged by the daily situation.

Now this service of protection under the direct control of the Inspector-General of Communications (extending up to the "Rendezvous" nearest to the rear Division of the Army) may require the organization of small flying columns of troops whose probable distance from the railway will have to be considered in connection with the maintenance of their supply. That they should march as light as possible is obvious and, as their strength will not be great and their functions mainly in the nature of police duties, a fairly populous district should generally be capable of supplying most of their requirements in the way of food, but it is conceivable that the Staff of the Lines of

Communication may have to organize a special service of maintenance for them, and they should not be forgotten in the quantities sent by rail from the Advanced Supply Depôt.

From the foregoing it is clear that on the Staff of the Lines of Communications devolves the duty of reconnaissance of the routes to be followed by the various Supply Columns and the selection of "Railheads" within the limits of any instructions received from the Army Staff as before indicated. Thus the officers carrying out such reconnaissances should be well acquainted with the class of vehicle that has to use lateral roads as well as main roads, and they should have an appreciation of any technical difficulties that may be expected in the transfer of loads from the railway trucks to the lorries. They must also bear in mind that the "Railhead" forms the headquarters for the time being of the Mechanical Transport Company acting as a Supply Column, and that it is here that the daily overhaul of vehicles will have to be carried out and any slight running repairs executed during the night. As such reconnaissances obviously take time, it is perhaps now clear, why it is so necessary that the Army Staffs should give as much notice as possible of the "Rendezvous" selected.

Next, in order of importance, comes the question of the locality of the Inspector-General of the Line and his principal officers. It is clear that he should move his central office as little as possible, yet he should be so far forward as to be able to communicate quickly both with General Headquarters and Army Staffs. To some extent his position will be indicated by those points on the Railway where alternative routes may become possible. As such points will be junctions of lines, these will in all probability become the "Regulating Station" for the rail service, and on the whole such a position seems the most natural place for the Inspector-General. Considering that his duties are chiefly those of the maintenance of the supply services, it is suggested that the following Staff Officers must always be with him:—

(*a*) General Staff Officers.
(*b*) The Assistant Quartermaster-General.
(*c*) The Deputy Director of Railway Transport.
(*d*) The Deputy Director of Transport.
(*e*) The Deputy Director of Supplies.

The duties of the General Staff have already been mentioned, but it is on the Assistant Quartermaster-General and the remaining officers above mentioned that the bulk of the responsibility rests. These four should practically be inseparable and each requires assistance in his own branch of a kind that will permit one officer to be constantly in attendance in the office, while others are at "Railhead" watching the progress and contents of the various trains that are arriving from the Advanced Base. It is of course at the "Regulating" station that trains may require to be remarshalled and diverted

in accordance with the situations of the Divisions at the front, and there may be occasions when even slight transfer of loads will be necessary, but much of this would be obviated if the Assistant Quartermaster-General bears in mind that he is the co-ordinating head responsible for laying down the times of arrival of the Railway Trains, so as to work in with the return of the Supply Columns at the various "Railheads." All his calculations must therefore be made from this basis, and in addition to the Deputy Director of Railway Transport, his chief co-operator is the Deputy Director of Transport, on whom devolves the duty of superintending the traffic management of the Supply Columns and Ammunition Parks just as the Deputy Director of Railway Transport is responsible for the traffic on the Railway Line. In so far as the contents of the Railway Trains are concerned, the Deputy Director of Supplies is the Officer to whom the Assistant Quartermaster-General must look for communicating with the Advanced Supply Depôt.

Inasmuch as it may be impossible to foretell the length of railway line between the Advanced Base and the "Regulating Station," if the distance becomes excessive it is conceivable that the grouping of the various portions of the Advanced Base may cover an extensive area in the theatre of war. The Lines of Communication Staff must therefore be prepared for such a contingency. Governing the distribution of the various depôts is the fact that, so far as food is concerned, the Advanced Supply Depôt must be sufficiently near to the front (but in rear of the "Regulating Station") to permit of the despatch of bread and meat in such a manner that it may reach the troops in a condition fit for consumption. When thinking of an Advanced Base we are apt to get into our minds a locality where all the depôts of the various branches of the Army are situated in a ring fence. Such will hardly ever be the case under modern conditions, for the various positions may be with advantage distributed in depth to fit in with local conditions, although it may be taken as an invariable rule that the Advanced Supply Depôt will be the one closest to the "Regulating Station."

It is impossible to pursue this subject of Staff Duties on Lines of Communication to greater detail, but it is hoped that enough has been said to show that too great stress cannot be laid on the fact that the bulk of the co-ordination necessary for working the new transport system efficiently rests on the shoulders of the Assistant Quartermaster-General of Lines of Communication. For him effectively to do this it is imperative that the Director of Army Signals should be prepared for as complete a system of Field Telegraphs and Telephones as circumstances permit. That this service of communication is essential is best recognized by an appreciation of the fact that the Assistant Quartermaster-General, being the officer responsible for timing the movements of the Supply Columns and Railway Trains, the more exact the information at his

disposal as to the positions on road and rail of the units of supply, and the more accurate his knowledge of any unforeseen circumstances on the roads, the better will he be able to take advantage of the elasticity which the new organization permits.

## CONCLUSION.

In the time allotted to me for dealing with this subject, I trust it will be recognized how impossible it has been to include a number of important details that could have been mentioned. It is hoped, however, that sufficient has been said to emphasize the most essential principles to be recognized by Staff Officers, and when for a moment we compare the new system with the old where echelons of horse-drawn vehicles were liable to hinder the mobility of the fighting troops, a sense of relief is felt, that we are not now dependent on slow moving wagons to connect the Divisions with the railway in rear; and at any rate the problematical expediency of supplying the Cavalry Division from sections of the old Transport and Supply Parks, belonging to other formations, has disappeared.

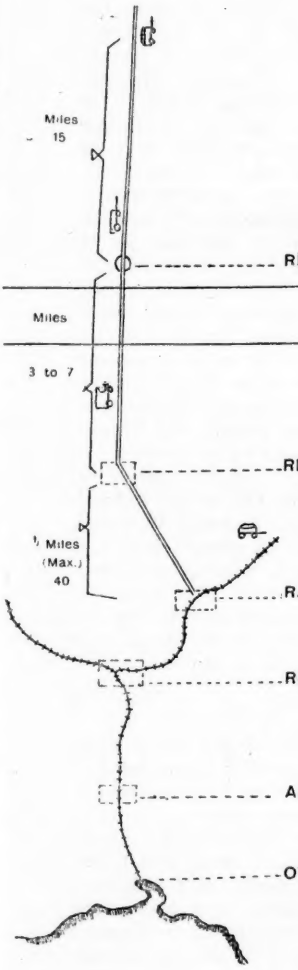
It must also be recognized that no Army Manœuvres that we are likely to undertake can fully test the capabilities of the new system, which is devised for continuous operations, though an approximation of some of the details may be gained. Hence it follows that the main source of instruction for Staff Officers will have to be by means of Staff Tours, but these will be valueless unless adequate attention is given to the minutest details, backed by the experience of manœuvres and technical knowledge of the limitations as well as of the possibilities of mechanically propelled vehicles. As it is on the Officers of the Administrative Staff of the Army that the responsibility for harmonious working of the system depends, it is to their training that special attention must be paid, but the training must be directed not only towards the detailed work to be performed by individuals, but to the harmonizing of the duties of the several Staffs and a proper estimate of the means of communication with each other in a theatre of war.

## DISCUSSION.

**Lieut.-Colonel Astley Terry,** Assistant Director of Supplies and Transport, London District, said that several points had been suggested by the Council for their consideration, [1] and he proposed to take the first and if possible, the second, by way of making a start. The first question was: "*How far should the transportation of sick and wounded be dependent on the Supply Columns?*" In that little pamphlet issued with Army Orders to which the Lecturer had alluded, it was laid down that the Supply Columns (mechanical transport) might be used for the evacuation of sick and wounded. When he read that first, he, and probably others, formed the conclusion that it was a very excellent thing that the mechanical transport, which was going up full and then coming down empty, and would be running on regular lines between fixed points, should be utilized

[1] For list of points see page 703.

## TRANSPORT SYSTEM.




| | Rations. Men | Rations. Horses |
|---|---|---|
| Troops. On man:—1 Reserve Ration, + 1 Emergency | 1 | 1 |
| Food. On horse { current day's Oat Ration. | | |
| Regimental Transport. (1st Line) (The current day's ration) | 1 | |
| Divisional Train. (Supply Section +1 Extra Grocery Ration) | 1 | 1 |
| REFILLING POINT (For Divisional Train.) | | |
| Miles — In front of L. of C. | 3 (1 Emergency | 2 |
| Divisional Supply Column (M.T.) (Returning to rail head same day.) | 1 | 1 |
| RENDEZVOUS. | | |
| Reserve Park (Horse Transport.) (marching parallel if possible to M.T.) | 2 | 2 |
| RAIL-HEAD. (Divisional Supply Columns refill) | 1 | 1 |
| On rail for Rail Head. | 1 | 1 |
| REGULATING STATION. (Rail.) | | |
| ADVANCED BASE (Advanced or Main Supply Depot.) | variable | |
| OVERSEA BASE (Reserve Supply Depot.) | variable | |

in that manner. One knew where it was going, and what time it was going, and, therefore, why should it not be used for the sick and wounded and thereby help the medical authorities instead of allowing the transport to go back empty? But on second thoughts, after very careful consideration, he had come to the very opposite conclusion—that the bringing back of the sick and wounded in the Supply Columns would be a very bad thing. The question could be looked at from three points of view: firstly, from the point of view of the Transport Officer; secondly, from the point of view of the Supply Officer; and thirdly, from the point of view of the Medical Officer. The Transport Officer was chiefly concerned with the running of his vehicles, and above all, with punctuality. He knew it was not supposed that he would have to wait any time for the purpose of picking up sick and wounded, but he was quite certain that in practice if he had to take sick and wounded he would not be able to run up to time. He would be continually having calls made upon his humanity. People would say to him, "There are more coming," and he would have to wait. They would say, "If you do not take so-and-so he will die," and he might not be strong enough to resist such an appeal, and he would, as a consequence, get back late to his destination. The result would be that his men would not get the rest they ought to get, and must get if they are to be efficient; sufficient time would not be given for his vehicles to be overhauled, and his vehicles would certainly come back in a very dirty condition. Wounded men after only first aid treatment would bleed, and so on, and sufficient time would not be available for the vehicles to be thoroughly cleansed as they ought to be. The same argument applied too from the supply point of view, because if the Supply Officer could not depend on his vehicles being absolutely ready to start at the time named, and ready to load and unload at the times named, and always in a fit condition to run, he would say, "I will not be responsible for the feeding of the troops." He was not, of course, able to speak with any authority from the medical point of view, but his friend, Colonel Bedford, D.D.M.S., London District, was there, and he hoped he would give them his opinion from his own standpoint as to whether it was a good system or not. He summed up his objections by saying that to put day after day, not only wounded men, but sick men, who might be infectious and from whom one might catch all sorts of things, into the same vehicles in which the food that was to be eaten by the troops was carried, was not hygienic, was not right, and ought not to be done.

### THE RESERVE PARKS.

Coming to the second point: "*To what extent should the Reserve Parks be allowed to carry ammunition and stores, and, if at all, what is to be done with their two days' reserve rations and grain?*" He thought that to some extent the objections he had just urged applied also to the Reserve Parks carrying other things than reserve supplies. When they would want those supplies they would generally want them in a hurry. The most usual case would be when the Commander-in-Chief had made a flank movement, such as Blücher made after Ligny, or Roberts made in advancing on Pretoria. He could imagine the feelings of the Director of Supplies when, on such an occasion, wanting his supplies in a hurry to open his new lines, he was told that his Supply Columns were coming back in a frightful state full of sick and wounded, and that his Reserve Parks, on which he ought to be able to rely at any moment, were being driven full of ammunition to the divisions in front; while the supplies

that ought to be available had been dumped down perhaps in a place where, owing to the change of direction, it was not safe to go and pick them up. He considered that both the ammunition and the supplies are of such supreme importance to an army that one ought not to be allowed to rob the other of the transport which should be available for each; and, at the risk of increasing the transport unduly, he said it was the lesser evil to have separate transport for the food, for the wounded, and for the ammunition; and not on any account, under any circumstances, to mix up the three at all.

**Colonel P. E. F. Hobbs,** Assistant Director of Supplies and Transport, asked whether criticism was confined to the points suggested by the Council.

**The Chairman:** No; they are only put forward as suggestions.

**Colonel Hobbs** said there was only one point on which he quarrelled with the Lecturer, and that was his apology at the commencement. He thought six months after the birth of a new system was a very much better time for discussion and consideration than a few days after its inception. As a matter of fact, since the scheme was first put forward, it had been considerably improved upon, perhaps only in matters of detail, but detail in questions of supply and transport counted for a good deal. The Lecturer had a very difficult task before him in treating such an enormous subject in a lecture limited to one hour, and it was only those who have had to treat these big subjects in condensed lectures who knew how very hard indeed it was to decide what to put in and what to leave out; and he thought the Lecturer was to be congratulated on the way in which he had steered a middle course.

### THE DIMINISHING SUPPLY OF DRAUGHT HORSES.

Colonel Carter had met criticism in more than one direction; but there was one aspect of this new system which had not, as far as he knew, been much dealt with, and that was that it was the only system which was open to them. From time to time, officers in positions similar to his own, have heard a certain amount of criticism launched at this new system of transport. It was the *only* system that was possible, for two reasons. First of all, the general art of war was making such tremendous progress. They were aiming tactically at very much increased mobility, and the question of communication and intercommunication in the field was receiving much more attention than ever before. That was the first reason. The second reason why this system was imperative—and that was why they must make the best of it—was that the supply of light draught-horses in this country was fast diminishing. The old Supply Columns each required about 300 draught horses, *i.e.*, 1,800 for the six Divisional Supply Columns; so that if the new system relieved the Remount Department of the necessity, on the outset of war, of getting 1,800 draught-horses, the Royal Field Artillery was to be congratulated, because there would be more horses available for that arm. A distinguished politician, quoting Burke, had recently observed that, " the desire to preserve and the ability to improve, taken together, would be his standard of statesmanship." They might use that, he suggested, as the axiom of administrative soundness, and he thought the originators of this new system of transport could very well be credited with the desire to preserve what was good (and worth preserving), and

the ability to improve what was obsolete. And, if they had done nothing else in this new system, they had got rid of those wretched traction-engines, which would always have been a thorn in the side of the General Staff and every other branch.

He would now briefly touch upon one or two points alluded to by the Lecturer. First of all there was the question of cooking wagons. They all knew that the fighting soldier would do his best on a *hot* meal. How were they going to give it to him? It was the basis on which they were to be allotted which was the difficulty. The present scheme was to have four of those cooking wagons (each of which would cook for 250 men) per battalion. That was a very useful number if one was dealing with a squadron of cavalry or a battery of artillery, but, if they gave a battalion four of these, it added four vehicles and eight draught-horses to the First Line Transport. He wished them to consider whether they were proceeding on sound lines with regard to these very important cooking vehicles, which seemed to be the means of putting the men into good fighting trim.

He thought the Lecturer's division of his subject into three periods, viz., Concentration, Strategic-March, and Encounter, was very valuable; and as there were a number of officers of the Army Service Corps present, he was sure the junior ones would derive great benefit from that division, because it would enable them to understand that they had three totally different sets of conditions to meet. They prided themselves on being able to make this new system as elastic as possible, and it was intended to meet varying circumstances; and that division into three periods certainly suggested every variety of condition.

The Lecturer had said it was impossible to select re-filling points from the map. He would like to endorse that most thoroughly. If there were any officers present who were going on Staff tours, he would tell them that it was perfectly idle, on any maps that were put into the possession of officers going on Staff tours, to select re-filling points without going to the actual places.

### THE POSITION OF THE I.G.C.

He thought the suggestion that the I.G.C. might have to be at General Headquarters, particularly at the initial stage, was made by the Lecturer for the first time. It was certainly the first time he had heard such a suggestion made in a lecture delivered at this Institution. That was a very important point, because several senior officers would accompany the Inspector-General, and the actual place where they were put and the degree of personal communication which took place between the I.G.C. and the Commander-in-Chief would have a very important bearing on the administrative work at the outset of the campaign.

He thought one of the best remarks in the whole lecture was that made on the first page, where Colonel Carter said that this system was one "in which every Staff officer, as well as every unit, was vitally interested, and one that must not be considered as dependent on the unaided efforts of a single branch of the Army, namely, the Army Service Corps, for adequate interpretation and success." They were now working, thank goodness, on a system which was not divided into close water-tight compartments. Many of them could speak from experience and say, for instance, that the measure of assistance, consideration, and sympathy extended by the General Staff—the most important division of the Staff—to the officers charged with administrative supply and transport matters, was very much higher to-day than it had ever been in the history

of our Army. In conclusion, he would like to congratulate Lieut.-Colonel Carter on attracting such a large audience, which he saw, included naval, military, and Territorial officers, and also a very large number of the officers of his own branch of the Service, both past and present.

**Colonel Turville Foster** said there were a few points in the lecture to which he should like to draw attention. It had been a large part of his work during the last twelve months to try and apply the principles of this new system on various staff rides and at war games, and there were a few difficulties which they found constantly recurring. They were small points of detail. He did not think they were of very great importance, but still they must give their attention to them.

The first point on which he thought a good deal of criticism had arisen was that of giving the Inspector-General of Communications 36 hours notice of the rendezvous. Great objection had been taken to this. Of course, one could not do it when the force was in touch with the enemy, but under other conditions he thought it was quite possible; it was quite as easy as to give 24 hours' notice. For instance, when operation orders were issued at Army Headquarters that night, the Quartermaster-General knew where the force was going to billet on the next night, and therefore he could fix his rendezvous in a convenient position to the billets of the force the next morning. That day, being Wednesday, he would fix the billets for Friday morning.

The second point which Colonel Carter had mentioned was that the rendezvous should not as a rule be more than seven miles distant from the re-filling point. When they had a division marching on one road, the rendezvous must be at the rear of the division and the re-filling point at the head, and he thought the depth in which the division *would* billet must often exceed seven miles. Therefore, he did not think seven miles ought to be laid down as even an approximate limit; he thought greater latitude should be allowed.

There was one point on which he might have misunderstood the Lecturer, and that was when he said that the divisional train should march as an integral part of the division. By that he concluded he meant that the supply sections of the train were to move off at the same time as the baggage sections. If the division was marching on a single road and no lateral roads were available he did not think that was practicable, because the re-filling point was at the head of the divisional billeting-area, while the rendezvous was at the rear. The Supply Column with mechanical lorries could not get through the troops, and must wait till the road was clear. Therefore the supply sections must wait at the re-filling point near the head of the area, after the troops had marched off, until the Supply Column came up, and then refill. That would put them from an hour to two hours behind the rest of the division. Under these conditions they must march independently of the rest of the train.

### SUPPLY OF THE CAVALRY DIVISION.

As regards the *arrangements made for the supply of the Cavalry Division,* Colonel Carter, he gathered, seemed to consider them as identical with those made for feeding two divisions on one road. That was a point to which he knew a great many cavalry officers would take exception. Cavalry would, as a rule, be a long distance, or at least some distance, to the front or to the flank, and consequently the supply sections of their train would be more exposed than those of the divisions in the rear. *Therefore most cavalry officers insisted* that the cavalry train must

march as close as possible to the main body of the cavalry, and it must move all together—both the supply sections and the baggage sections. In these circumstances the supply sections could not be left behind to refill. As a rule, when the Cavalry Division was in front, the supply sections would have to refill in the evening, the Supply Columns running out after the divisions behind had entered their billets. Of course, he was only speaking of the cavalry.

When two divisions were on one road there was one means of supplying them which had not been considered. When the troops were in billets, he did not think it would always be necessary to have their baggage up. Therefore the Train could move behind the rear division, and it seemed to him that the easiest and simplest system of supply in those circumstances would be to run the Supply Column straight through to the units from the rear without transferring supplies to the train. He thought they should take full advantage of the speed of these mechanical vehicles, and of the distance they could cover.

There was another point with reference to the functions of the reserve supply parks. The reserve supply parks would afford a very useful reserve of horse transport close at hand for quickly replacing casualties, and also for use in parts of the country unsuitable for mechanical transport. They would get some country of this kind in all parts of Europe.

The only other point to which he wished to draw attention was the fact that he thought the staff at the regulating station should certainly include a representative of the Medical Department and of the Ordnance Department. With regard to the I.G.C. himself, he did not quite agree with the Lecturer; he thought he could be further behind. His office should be at some more permanent point on the lines of communication than the regulating station, and he would probably depute a senior officer of his staff to represent him there.

**Colonel Selden Long,** Assistant Director of Supplies, said that he wished to refer to the suggestion made by the Lecturer that the refilling for the divisions in bulk would have to be done at the advanced depôt and the detail distribution carried out afterwards at railhead. He was sure that that should be avoided whenever possible, because, after all, whether the advanced depôt is 50 miles or 100 miles behind the railhead, in these days of easy communication it was immaterial. The information was at the advanced supply depôt almost at the same moment as it would be at railhead. The only advantage was that one gained the difference of time in the despatch of the goods before they arrived at railhead; but the more one could do the detail distribution at the advanced depôt, and the more carefully it could be done, the less confusion would there be at the front, where the railhead would frequently be a small wayside station or no station at all, and the difficulties of distribution would be exceedingly great.

ROADSPACE OF THE SUPPLY SECTIONS OF A DIVISION.

Colonel Carter had written in his paper that the supply sections in the division train occupied half a mile. He had qualified that statement when he was reading the lecture, and had said, "I am wrong, I mean one-and-a-half miles." Curiously enough the lecturer was right in the first statement. He (Colonel Long) had hastily calculated it out. There was to be an increase—he did not think it was a secret—in the weight of a man's rations: one could now put it down as five pounds instead of four-and-a-half pounds. There were roughly 19,000 men in

the division, and taking the average gross weight of the man's food as five pounds, that came to 95,000 pounds. Then there were roughly 6,000 horses, and taking 12 pounds of corn per horse that represented 72,000 pounds. Those two figures added together and divided by 30 cwt., the load of a wagon, gave you 50 wagons. Therefore, 50 wagons were all that were required for feeding a division for one day, or 25 lorries at three tons per lorry. Colonel Carter was therefore quite right when he said the supply column would occupy half a mile.

Speaking as a supply officer and as a transport officer, he thought they were all obsessed with the stupendous amount of transport that was required for the feeding of an army. Let him assure them that it was not very great. Fifty wagons for a division was not such a very great undertaking. What had happened was this: they had gone on a system of lumping everything—Church Armies and their pianos, temperance tents, and Heaven knows what—on to the transport. If the supply officers had said, "We will have nothing to do with it; we will look after it if you like, but you must put it on one side from the food which is ammunition necessary for life," they would have been in a much better position. He considered they should get rid of it; 50 wagons or 25 lorries could carry sufficient food for the feeding of a division for one day; he had often seen infantry hurriedly pushed on one side of the road while a battery of artillery or a squadron of cavalry went by. Then why not do likewise for the small Divisional Supply Train?

### THE NECESSITY FOR RESERVE PARKS.

With regard to the reserve parks they were absolutely necessary, because if the soldier ate up the one reserve ration carried at present, and there were no reserve parks it was rather difficult to see what one was to fall back upon. In modern warfare, such for instance as in Manchuria, an action lasted four or five days, and the General Staff said that it was impossible to have anything in the way of cooking on the field of battle. It must be cooked in advance, or the food must be pushed up to the soldier in some concentrated form. The idea at present was that he carried one ration, and when an action was imminent another would be hastily brought up, so that he would go into action with two days' food. Possibly a wise commander-in-chief would try and supply the soldier with three days' rations, and say to him "There is your concentrated food, and that must last you for three days." Therefore, the reserve park must be behind carrying that reserve food, otherwise there would be no means of pushing it up.

**The Chairman:** Gentlemen, by a coincidence I happened on the very day that the proof of Colonel Carter's lecture came into my hands to pick up a very old book on small arms written by a General in the British Army at the end of the 18th or the beginning of the 19th century, in which he said: "Small arms have now attained a pitch of perfection which it is impossible to exceed." It occurred to me at the time that Colonel Carter's lecture, so far from being written in such a happy spirit as that—a sort of smug satisfaction at having achieved finality—rather impressed upon us, as I think it ought to impress upon us, that we were at the beginning of an absolutely new departure, that we were now taking advantage of an invention which has only been on the roads for some 15 or 16 years, and that therefore we must approach the matter quite as beginners or learners and begin *ab initio* to develop

a new system. I do not know if any of you saw the experiments which were carried out with steam tractors two years ago. On that occasion, as Colonel Hobbs reminded you, we had an extremely imperfect machine to deal with, and practically you may say the whole thing broke down. The steam tractors were all over the roads, and even between Aldershot and Salisbury, which you cannot call exactly a waterless district, we found that practically there was insufficient water to keep them going. The distances across the watersheds were too great to enable them to struggle from one water supply to the next. Consequently, as Colonel Carter says, the internal combustion engine using petrol was forced upon us. What it will develop into nobody knows of course. It is, I suppose, not absolutely impossible that in the future—we may not see it, but posterity may see it—one of the first things that will be done will be to lay down a pipe line in war time, and petrol will be pumped up along the lines of communication, because the internal combustion engine will then have been developed to an extent that nobody even dreams of now.

There are some points which I extremely regret have not been discussed to-day as we have had such a large number of Army Service Corps officers present, and those are what I may call the minor details of the working of the columns. For instance, among the points put down for discussion on the list was the question of the amount of "tailing" and what the length of one of the columns is likely to be. Colonel Long talks about half a mile, but what will the actual length of the columns be when they are at work?

**Colonel Long** said that according to the time-table there were 50 vehicles, and taking 15 yards per vehicle that gave 750 yards.

**The Chairman:** The point is as to the amount of tailing which may be expected from a column of motor lorries. I do not expect that anybody who has to drive a large number of these motors expects to drive them quite close up to one another. I imagine a tremendous space will be occupied by them on the road. However, as nobody has offered an opinion on that, I am afraid we cannot go into it any more. One point I think we have settled is that the Army Service Corps as a corps is totally opposed to mixing up the functions of Supply with other carrying functions, for instance, the carrying of wounded. I am sorry that no officer of the Army Medical Corps has spoken on that subject. Apparently the Army Service Corps will have nothing to do with mixing up the carrying of the wounded, or the supply of ammunition, or the supply of stores with the functions of Supply, and no doubt from the staff point of view that is a tremendous advantage, because the mixing of functions certainly leads to confusion.

### SERVICE ON THE LINES OF COMMUNICATION.

One of the great advantages of this meeting this afternoon, and the discussion that has taken place is that it shows what a tremendous interest is being developed in the British Army in what I may call lines of communication service. A few years ago, before the South African War, I think we may say that a subject of this kind would hardly have attracted more than a dozen people to this theatre. The result of the South African War has been that people have seen what an extremely important thing it is that there should be a proper development of the lines of communication. Those of us who were at the War Office in 1899 know very well that when the composition of the field force was published every unit and every individual whose lot was cast on the lines of commu-

nication rushed off to the War Office and asked that somebody else might be allowed to do it for him; it was looked upon then as a sort of slur to have to work on lines of communication. One could only say that the rôle of acting on lines of communication was one degree better than the rôle of those who had to remain behind, but under any circumstances it was, perhaps, only human nature and it reflected great credit on everybody, that they wanted to be up at the front. If we want to have the lines of communication properly served in future there must be no thought for one moment that it is a slur on anybody to serve on them. We must have good men on them; we must have tactful men—men who will make the machine go. I think the great interest which has been shown in this meeting to-day, and the fact that officers of all arms of the Service are present, shows that the Army is alive to the fact of the needs of the lines of communication, and how everybody depends on the work which is carried on by them. I believe that Colonel Carter has made good his point, as Colonel Hobbs said, that the subject is one that not only interests the Army Service Corps, but interests the Army as a whole; and I think I shall be voicing the opinions of all who are here present if I offer him, in your name, a hearty vote of thanks for the trouble he has taken in preparing his lecture, and for the great success it has attained.

## APPENDIX I.

### NOTES BY THE LECTURER ON POINTS RAISED BY SPEAKERS DURING THE DISCUSSION.[1]

It is a matter of regret that some of the points suggested by the Council were not touched on during the discussion, notably the question of the length of the Supply Columns on the road, together with the cognate subject of "tailing." As a matter of fact we should only have been theorizing, as no extended experiments had then taken place from which reasonable deductions could have been made. It may, however, be assumed, until an authoritative statement is issued, that mechanical transport can be run without danger to the engines at an average interval of about 75 yards between lorries, but this distance is capable of reduction to about 30 yards when passing through towns or defiles of any sort for tactical reasons.

Colonel Terry called attention to the use of mechanical transport for the removal of sick and wounded. While agreeing with him from a transport and supply point of view, and supporting him in the reasons he gave for his conclusions, I do not think that we should tie up our transport to such an extent as to earmark its various sub-divisions for special classes of loads, whether those loads be composed of wounded men or stores or ammunition; the Army Service Corps must be prepared to allow their vehicles to be used for the conveyance of loads other than those definitely laid down by regulations, *when the occasion demands it.*

Colonel Foster raised several points of detail, which he modestly described as being possibly unimportant. No detail in connection with the new system of transport is without importance, but it is with regret that I cannot help feeling that Colonel Foster has not only missed some of the salient points of the lecture, but has read into a few sentences a meaning which a reference to the context should dispel. For instance, he criticises the statement that 36 hours' notice of the *rendezvous* to I.G.C.

[1] Owing to the lateness of the hour no opportunity occurred for the Lecturer to reply at the close of the discussion.—Ed.

is impossible except when at a distance from the enemy. I had hoped that, inferentially at any rate, I had made this quite clear by my subdivision of the subject under the three distinct phases of a campaign. My contention is that during the major portion of the strategic advance the Army would be marching in an almost certain degree of security, and the Army Headquarters Staff should be quite capable of forecasting their halting places 36 to 48 hours ahead, and consequently selecting the *rendezvous* without much difficulty. It must be borne in mind that the communication of this information to the I.G.C. would invariably be by telegraph *prior* to the issue of the formal operation orders which must naturally take time to reach him. There is another point raised by Colonel Foster to which it is necessary to allude, and that is the position of the Divisional Train on the march. I cannot myself conceive of any Divisional General wishing to be separated from his train by any long distance, and I am doubtful whether regimental commanders would agree with the statement that, because the men were in billets, they could do without their baggage wagons. One of the principal advantages of the new system is to get the food of the men ready for consumption as soon after their arrival in the billeting-area as possible, and if in addition the baggage wagons are also within reach, it is clear that the men should, at a comparatively early hour in the afternoon, be able to obtain the utmost measure of comfort that active service conditions permit. Yet one other point in Colonel Foster's remarks in connection with the Cavalry Train requires notice, namely, the question of its safety. This is a problem that cavalry commanders will *have* to solve, and connected with it is the security of the Supply Column running from Railhead. The solution of the problem lies in the position of the several cavalry formations, and it seems reasonable to argue that when cavalry find that they are dependent on supply from the rear, the march dispositions of their main bodies will necessarily be so arranged as to give some degree of protection to the Mechanical Transport on which they must depend for subsistence and ammunition.

### THE LENGTH OF A DIVISIONAL TRAIN.

I am indebted to Colonel Long for calling attention to an unfortunately worded sentence in the lecture regarding the length of a Divisional Train. Notwithstanding Colonel Long's defence of my original statement, the criticism to which I referred was justifiable, and I have added an explanatory note which should make the matter quite clear. I do not think that Colonel Long's experiences—any more than my own—of church organs, pianos, pews, roll-top desks, etc., in South Africa are likely to be repeated in a European war. Our own transport certainly cannot carry them, and I doubt whether, even if permission were given, troops would be able to find "local" transport for such articles. The days for such atrocities are past, I am convinced, and professional soldiering is too much of an art now to allow us to admit even their possibility in future wars with highly-trained opponents.

I cannot conclude without a word of thanks to Colonel Hobbs for his remarks, and more especially for calling attention to the sentence which was really intended to be the keynote of the lecture, namely, the need for the recognition of the fact that the success of the new system of transport is dependent not merely on the Army Service Corps, but on the measure of appreciation and application that it receives from all branches of the Army and more especially from the several Staffs of the various formations.—E.E.C.

## APPENDIX II.

NOTE.—*The following notice was printed with the Synopsis of Colonel Carter's Paper, and was circulated before the date of the Lecture to various Units and Military Establishments.*

### POINTS FOR DISCUSSION.

To facilitate discussion the following points are suggested by the Council for the consideration of officers attending the Lecture:—

1. How far should the transportation of sick and wounded be dependent on the supply columns?
2. To what extent should the Reserve Parks be allowed to carry ammunition and stores? And, if at all, what is to be done with their two days' reserve rations and grain?
3. The distribution of staff duties in connection with transport generally, having in view the fact that as a rule the same roads will be required for:—
   (a) Supplies.
   (b) Ammunition.
   (c) Medical.
4. The consideration of the degree of "tailing" which may be expected from a column of motor lorries, the road space which they may be expected to cover at any one time compared with a horse column of similar carrying capacity, and the time which, in case of attack, they are likely to take up in forming up and rendering mutual support to one another.
5. The consideration of the most expeditious method of transferring loads from mechanical to horse propelled vehicles.
6. The consideration of the proper limitation of the functions of the L. of C. Staff in controlling columns which (as is the case of those for the Independent Cavalry) must necessarily intrude into the zone occupied by the fighting troops of the less mobile organizations.
7. The effect on tactical dispositions (*e.g.*, the depth which the armies of the future will be able to adopt) which may result from the possibility of supplying the more advanced lines *through* those in rear.

# THE REVOLUTION IN CHINA.

(Continued from March JOURNAL, page 409).

### Events in March.

The end of February and the beginning of March saw a recrudescence of disorder in Peking. The 3rd Division, hitherto regarded as Yüan Shih-k'ai's most trustworthy troops mutinied on the 29th February, and streamed through the Tartar and Chinese cities, burning and looting in every direction. The mutiny does not appear to have had any political significance. A rumour had been current that the division was about to be disbanded; and this, added to the irregular issue of pay to the troops, provoked an outbreak. Mutineers, to the number of 1,300, seized three trains, and left for Pao-ting Fu, the business quarter of which was looted. Europeans were unmolested both in Peking and Pao-ting Fu. The restoration of order was entrusted to the Wu-wei-tso-chün, a well-disciplined body of Provincial troops, and was effected by March 3rd. All individuals found looting were summarily shot. Most of the mutineers succeeded in escaping scot-free, but a number of civilians were killed.

On 3rd March 700 men representing the Guards of nine legations marched round Peking; this procession was meant to demonstrate the intention of foreign Powers to maintain order, should the occasion arise. On the same day the Legation Guards were increased by some 600 men, comprising British, French, American and Japanese. The German Government also decided to reinforce their Legation Guard by 100 men drawn from the garrison at Tsingtau.

On the same day an attempt was made by Chinese troops at Fêng-t'ai to interrupt railway communication between Peking and Tientsin, but this was frustrated by the action of the detachment of the Somerset Light Infantry, which was guarding the railway station, aided by the opportune arrival of the Royal Inniskilling Fusiliers.

On the night of 3rd March rioting also occurred in Tientsin, and a German doctor, who was endeavouring to assist some friends, was shot by a Chinese policeman.

On the 4th March Mr. Day, Church of England missionary, who, together with other missionaries, was visiting some of their country stations, was murdered near Pao-ting Fu by Chinese soldiers. Yüan Shih-k'ai expressed to the British Legation, his profound regret at the occurrence and dispatched 30 Chinese cavalry to the scene. These, together with a small body of British mounted infantry, escorted the missionaries to Peking.

On the 10th March Yüan Shih-k'ai took the oath of office, as Provincial President of the Republic of China. The ceremony was held in the great hall of the Foreign Office in the presence of the high Lamas, the Mongol Princes, high civil and military officials, and some foreign guests.

Amongst the appointments to the new Cabinet, Tang Shao-yi was nominated Premier, and Tuan Ch'-jui Minister of War.

On the 12th March some serious fighting took place at Canton between newly-raised troops and Regular troops, owing to the proposed disbanding of the former. Rail and telegraphic communication with Hong Kong was interrupted, but by the 15th March tranquillity was restored in Canton itself and along the Canton-Kowloon railway, and it was reported that the new Government was satisfactorily controlling the situation. It is reported, however, that the mutinous troops have occupied the defences of the Canton river, on Danes Island and on either side of the Boca Tigris. On the 19th March news was received that Chinese gunboats were shelling the forts.

The Russian foreign contingent in North China was substantially reinforced on the 18th March, when, the *Novoe Vremya* reports, 700 men, consisting of three companies of infantry and half a *Sotnia* of cavalry belonging to the Frontier Guard, arrived in Tientsin.

The constitution of the cabinet was promulgated at Peking on the 30th March. It is a coalition cabinet, comprising ministers of both the Peking and Nanking Governments. It is considered progressive, but not particularly strong. However, owing to the refusal of many of the ablest men in China to take office, it is probably the best available under the circumstances.

General Tuan Ch'i-jui is confirmed in his appointment as Minister for War. Numerous appointments have been made to the post of Chief of the General Staff, the occupants resigning almost as soon as appointed; and at the time of writing the appointment is vacant.

General Huang-hsing, one of the most prominent of those who engineered the Revolution, has been given the control of the whole of the Southern Army, with headquarters at Nanking.

On the 28th March, 500 soldiers mutinied at Soochow, 60 miles west of Shanghai; they looted and burnt several shops. Similar outbreaks also occurred at Nanking on the 29th March and 12th April. In each case non-payment of the troops appears to have been the origin of the trouble. Order was restored after considerable loss of life, but these outbreaks are symptomatic of the feeling throughout the whole army, and may be expected to recur at any moment even among the better disciplined troops in the north.

### Events in April.

On the 1st April Sun Yat-sen and the Provisional Government at Nanking resigned office, and gave up their seals at a formal sitting of the Assembly. The President, in a speech, said that now that a settlement had been effected between North and South, it was their duty to retire and hand over their charge to abler hands.

During the past month affairs in China have assumed a more settled appearance. Outrages have been fewer in number,

and the new Government seems to be assuming, outwardly at least, some appearance of stability. All accounts agree however, in considering the present situation to be merely a temporary lull in the storm.

The Peking correspondent of the *Daily Telegraph*, whose forecasts have generally been justified by events, takes a pessimistic view of the present state of affairs. He considers the Manchus an absolutely negligible quantity. Their one ally is Chang-hsün, the "Butcher of Nanking," who remains encamped with 14,000 troops near P'u-k'ou on the Yang-tzü River, and steadfastly refuses all orders to demobilize. Everything, the correspondent says, hinges on the success or failure of the present Coalition Cabinet and the Advisory Council to impose the authority of the Government under the impossible Shibboleth "republicanism." General Li Yüan-hung, military governor at Wu-ch'ang in Hupei, and General Huang-hsing at Nanking, far from assisting consolidation, evidently disbelieve in the possibility of a united Republic. The correspondent says:—

> "Their (the Generals') independent power is daily growing. China to-day, therefore, has virtually three capitals—Peking, Wuchang, and Nanking, and if three kingdoms spring therefrom it will surprise nobody."

In the *Times* of the 11th April, it is stated that Yüan Shih-k'ai has appointed Sir Francis Piggott, Chief Justice at Hong Kong, to be legal adviser to the Chinese Republic.

**Loans.**

It had been evident for some time that a strong central Government could not be established in Peking without the aid of a foreign loan. Accordingly on the 6th March, four banks, representing Great Britain, France, Germany, and America, with the approval of their respective Governments, and with that of the Russian and Japanese Governments, agreed to advance Yüan Shih-k'ai 500,000 taels (about £62,500) at once, 500,000 taels within ten days and further amounts subsequently. The banks of all six nations were to participate. The participation was to be retrospective and was to cover an advance of 2,000,000 taels made during the previous week to the Nanking Provisional Government.

On the 16th March, it was announced that T'ang Shao-yi had arranged a loan signed by Sun-yat-sen for £1,000,000 with an Anglo-Belgian Syndicate, the loan to be secured on the Peking—Kalgan railway. The Six Nations' banks have lodged a protest against the loan, which, they assert, is an infringement of the agreement whereby the banks have advanced to the Nanking and Peking Governments more than 3,000,000 taels since the 28th February. On the 25th March, the Ministers of Great Britain, France, Germany, and the United States handed to Yüan Shih-k'ai a statement recounting the circum-

stances of the loan negotiations and protesting against the ratification of the Anglo-Belgian loan. The President expressed his regret for what had happened, and expressed his earnest desire to find a solution of the difficulty.

No satisfactory reply has as yet been received from the Chinese Government, and matters have therefore arrived at a deadlock. It is feared that this will continue, so long as no guarantees are given by China regarding small loans by outside Powers, which hope thereby to obtain admission to the Six Power Syndicate.

It is now stated that the representatives of the six financial groups will meet in London in May, and that until this conference has taken place, it is improbable that anything of a definite character can be arranged.

The *Morning Post* of the 13th April, states that the English representative of the Belgian Syndicate has signed a contract for a further preliminary loan of £2,000,000. This is in addition to the loan of £1,000,000 already negotiated, which caused the protest referred to above.

**Affairs in N.W. China.**

The difficulties of the situation have been increased by the threatened advance on Peking of a Mohammedan army raised in Kan-su and Shensi under Shêng-yün, an ex-Viceroy of these provinces. The army was reported to have reached Hsi-an Fu on the 22nd March.

Yüan Shih-k'ai is now negotiating with Shêng-yün, who is said to have agreed to disband his troops on condition that a large sum is given to him for their payment.

During April further disorders are reported from Shansi and Shensi. General Shêng-yün, the leader of the Kansu Loyalist Army, was reported to be still in the neighbourhood of Hsi-an Fu, the capital of Shensi, and is endeavouring to persuade the Manchus to rise in favour of the Emperor.

**Affairs in Mongolia.**

Reports from Russian sources at Urga state that the *Kutuchta* (ecclesiastical Head of the Mongols) has telegraphed to Yüan Shih-k'ai suggesting that the question of Mongolian independence should be submitted to the consideration and decision of the Powers interested in Mongolia. In the *Times* of the 19th April Yüan Shih-k'ai is reported to have telegraphed in reply that China could not brook the interference of any Power between herself and Mongolia, and that a plenipotentiary had been dispatched to Urga to negotiate.

**Tibet.**

Reports from Tibet are indefinite, but it appears that a general rising of Tibetans against the Chinese has taken place, and that there has been fighting at Lhasa, Gyantse and Shigatse. Lhasa, which is held by 2,000 Chinese soldiers, is said to be in a state of siege. The Dalai Lama is still at Kalimpong.

### Chinese Turkistan.

The Chinese officials in Chinese Turkistan appear to have adopted a policy of neutrality in connection with the Revolution in China. Kashgar remained quiet. A small revolution at Urumtchi at the end of December was suppressed. In Ili, the revolutionists were successful, and Ili was declared a republic at the end of January.

### Japan and China.

The leading Tokyo journals continue to take a gloomy view of the crisis in China; they prophesy dissensions among the leaders and an unsettled condition in China for some time to come; they show a distrust of Republicanism, and are amazed that no Chinese were found to support their late Sovereign at the supreme moment.

The Minister of War stated in the Diet that the following troops had been sent to China since the outbreak of the Revolution:—

Peking and Tientsin.—Four companies and six machine guns (in addition to the three companies already there).

Hankow District.—Two companies and six machine guns.

The Minister also stated that arms and ammunition to the value of about £300,000 had been sold to China up to the beginning of February.

A number of interpellations regarding Chinese affairs have characterized recent parliamentary sittings in Tokyo. The following are extracts—as reported—from answers by Japanese Ministers:—

"It has been the Government's constant policy since the outbreak of the troubles to preserve the territorial integrity of China, to keep a strict neutrality in China, and to take every possible means to protect the lives and property of Japanese subjects in China. For this last purpose the Japanese Government has recently despatched reinforcements of 1,200 soldiers to North China, and they are ready to despatch further troops either from Manchuria or Japan proper if the necessity arises as the situation develops.

"In regard to the alleged Japanese interference in the political affairs of China, I may say that the Japanese Government has never interfered in the affairs of China in any way. It may be true that Minister Ijuin, in concert with the British Minister, advised the Chinese leaders that it would be better for them to effect a reconciliation between the North and South, but such was simply advice and not interference in any way."

### United States and China.

It is reported in the press that additional troops have been ordered from the Philippines to China. This action has been taken at the request of the American Minister at Peking, who requested that the strength of the detachment should be increased to 1,200 men.

# THE WAR IN THE MEDITERRANEAN.

Continued from March JOURNAL, page 417.

## (a) Naval.

HIGHER COMMANDERS.—Vice-Admiral Aubry, Commander-in-Chief of the naval forces, died on board his flagship the " Vittorio Emmanuele " on the 4th March at Taranto. Vice-Admiral Faravelli, who commanded the 2nd Squadron was appointed to succeed him, and Vice-Admiral Viale, President of the Supreme Naval Council, took over the command of the 2nd Squadron. In April Admiral Faravelli, whose health is said to have broken down under continued strain, resigned his command and was succeeded by Admiral Viale.

AEGEAN.—While the attempts at mediation were still in progress in the early part of March it was stated that the Italian fleet would not undertake any operations in the Aegean pending the result of the negotiations. Nevertheless, the Turks continued active preparations for the defence of the Dardanelles against a *coup de main*. Before the outbreak of war the chief defences of the Dardanelles were situated on either side of the channel about Nagara and Chanak, where the greatest width is about 1,400 yards; at the Aegean entrance there were some old masonry forts. These latter works, which appeared the most exposed to an attack, were now strengthened and improved. Forts Kum Kaleh and Orkanieh on the Asiatic side, and Sedd-ul Bahr and Ertogrul on the European side mounted, between them, 18 heavy (21 to 28-cm.) Krupp guns; the total armament of the Dardanelles forts was increased to 350 guns, many of which were brought from the Bosphorous defences.[1] Additional mine defences were laid down and stringent regulations were issued as to the passage of ships, entry by night being entirely forbidden. Torpedo boats patrolled outside the Aegean entrance while the fleet itself was stationed at Nagara. A force of some 40,000 infantry and cavalry was held in readiness in the neighbourhood.

At Smyrna preparations were made to sink ships laden with stone in the narrowest part of the harbour entrance, six miles from the town. No particular measures appear to have been taken at other coast localities, various *Redif* units previously called out round the coast having been in fact dismissed.

On April 14th an official statement appeared in the Italian Press to the effect that the 1st Squadron of the Navy was about to leave Taranto to relieve the 2nd Squadron which had been employed since the beginning of the war on the Libyan coast. This was followed by the First Squadron leaving Taranto on April 15th and moving directly to the Aegean Sea. On the 17th the fleet concentrated near Stampalia; cables between Lemnos and Imbros were cut on the night of the 17/18 April, and by 6.30 a.m. on the 18th the Squadron, which had now been joined by the division of destroyers under the Duke of the Abruzzi, made for the mouth of the Dardanelles.

There was apparently no original intention of bombarding the forts at this time, the idea being partly to show the Turks that the Italian Government was prepared if necessary to demonstrate its full liberty of action in European waters and partly to draw out the Turkish fleet from

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[1] *Marine Rundschau.*

its place of refuge inside the Straits; with this latter object the Straits were approached in the first instance by only an advance division of the main fleet. This hope was not realized, though a Turkish destroyer showed herself at the entrance to the Straits. The Italian fleet moved towards her and was fired on by the outer Turkish forts at about 8,000 yards range; an engagement subsequently ensued in which 24 Italian vessels (four large units and 20 smaller ones) participated. An exchange of fire between these vessels and Forts Kum Kaleh, Orkanieh and Sedd-ul-Bahr lasted from 11.45 in the morning until 2 o'clock in the afternoon, but the ranges fired at were over 8,000 yards and little damage appears to have ensued on either side. A later newspaper report from Constantinople states that Kum Kaleh fort was completely destroyed, the Turks losing 600 killed and wounded. The Italian report states explicitly that no combined naval and military operations were intended and that there was no intention of forcing the Dardanelles.

As a result of this attack the Turkish authorities issued orders for the entire closing of the Straits to traffic.

Concurrently with the above engagement, two Italian vessels bombarded the Turkish barracks at Vathy in Samos and destroyed the guardship in the harbour. Later reports show that the Italians have established a naval station on the Island of Stampalia.

RED SEA.—The Italian naval squadron in the Red Sea consisted in March of five protected, three unprotected, and two auxiliary cruisers. Midy was bombarded on the 29th February and was simultaneously attacked on the land side by the adherents of Said and Idriss, the garrison of 60 surrendering after a brave resistance.[1]

Early in April it was announced that the Italian Foreign Office had informed the Powers that the naval blockade in the Red Sea, as declared on the 21st and 23rd January last (see Map in Feb. JOURNAL, page 248), had been extended from the 8th April, northwards from Ras Isa to a point 15° 15′ N. Lat. and 42° 43′ E. of Greenwich, that is to say, to a few miles north of Loheia, which is thus now included in the zone of blockade. The island of Kamaran had been omitted from the original zone, because it was the quarantine station for the pilgrims to Mecca; but when the Italians discovered that it was used as a base of supplies for Hodeida and that the Turks interpreted its exclusion as a confession of weakness on the part of Italy, the recent extension was deemed advisable.

### (b) Military Measures.

COMMANDERS.—Major-General Ameglio has been promoted to Lieut.-General. Major-General Ciancio has replaced Major-General Castadello as Chief of the Staff and has been succeeded in the command of his brigade at Benghazi by Major-General Marchi, recently promoted. Major-General Coardi di Carpenetto has been appointed to command a cavalry brigade in Tripoli, formed of the regiment of Florentine Lancers, two squadrons of Guides, and two squadrons of the Lodi Regiment.

ORGANIZATION: '81 LEVY.—The 1891 levy of recruits having completed its training in Italy at the beginning of March it was arranged that the 1888 levy, numbering some 53,000 men, should be passed into the reserve, commencing, for those serving in Italy, on the 20th March, and as soon as possible after the 1st April for the 25,000 men of the levy serving in

[1] *Marine Rundschau.*

Africa, who had been the first troops to sail for the war. The 1889 and 1890 levies number 150,000 men. Commenting upon the above statement, the *Popolo Romano* states that the army in Italy numbers 103,000 men, namely, 25,000 men of the 1888, 35,000 men of the 1889, 40,000 of the 1890 levy, and 3,000 of the standing army.

ARTILLERY.—The reorganization of the artillery in Italy was expected to be completed by May 1st. Each of the 12 army corps was to have a regiment of field artillery of six batteries, and each of the first 24 divisions a regiment of artillery of five batteries. A section of artillery mounted on camels has been formed at Tripoli.

DEFENCES.—A fort is in progress of construction at Tajura, about 12½ miles from Tripoli. Daily caravans of material and food are sent there, and recently several attacks have been made on them by brigands while on the march.

GENDARMERIE.—On the 3rd March the natives, who are to form a portion of the police force at Tripoli, were sworn in. This force is to be known as the "Gharian Force." It would seem to be in the nature of a gendarmerie, as it is spoken of as having made a reconnaissance on the 5th March.

LOSSES.—According to the official announcement in the Press, the Italian losses up to March 2nd include 37 officers and 882 rank and file killed.

COMMUNICATION SERVICES.—100 motor wagons, capacity one-and-a-half tons each, have been landed at Tripoli.

4,000 camels have arrived or are on their way to the Italian Army from Erithryea or Tunis.

The railway from Tripoli to Fort Santa Barbara was stated to be working on the 19th March and the branch line to Tajura was begun on the following day. The branch line to Gargaresch was completed on the 16th April on which day the first train ran through to the oasis.

The wireless station at Coltano has now obtained communication with Mogadisco and with Massowah. The new wireless telegraph installation at Tripoli is now believed to be completed; its radius by night will be 1,250 miles, and it will connect with Coltano and other important Italian centres. The wireless station at Benghazi can now communicate with Vittoria in Sicily.

### (c) Military Operations.

ITALIAN PRESS COMMENTS.—Several newspapers, including the *Esercito*, which is usually most orthodox and correct in its attitude towards all in authority, have lately criticized General Caneva's conduct of the campaign rather sharply. The general line of attack is that 100,000 Italian troops, equipped with all the most modern appliances of war, and with absolute command of the sea, have done no more after six months than occupy five points on the coast line of Libya; that the Turks can claim with some truth that all these five places are blockaded on their land fronts by some 6,000 Turkish regulars with some 12 guns, and about 20,000 badly armed Arab tribesmen; that not only is this action demoralizing to the troops but most unfair to them, now that their courage and discipline, of which their chiefs may have had some doubts at first, have been fully tried and proved to be beyond all reproach. It is also urged

that it would be most dishonouring to Italy were a peace to be now arranged, since, the Government having decided to resort to arms, it is only after striking a decisive blow that it can, with honour, impose terms of peace. The *Popolo Romano* of the 22nd ult. publishes a reply, saying, "We have had one Adua," pointing out that precipitancy is the mother of failure, and concluding, "and one Adua is enough."

*Western Theatre of Operations.*

GARGARESCH.—On the 3rd March a night attack was made on Fort No. 3 at Gargaresch by a Turco-Arab force coming from the direction of Zanzur. Soon after midnight, in bright moonlight, small hostile groups were observed moving against the 3rd Gargaresch redoubt. The trenches were speedily manned and, after heavy rifle and machine-gun fire supported by guns in the Di Simi and Battagha batteries on the extreme right near the coast, successive attacks were beaten back in 50 minutes.

Fort No. 3 was again attacked on the 16th March; on this occasion the attacking force, numbering about 300 Arabs, was dispersed by artillery fire with fuzes set at zero.

AIN ZARA.—On the morning of the 4th March the Erithrean Battalion, which is composed of four companies drawn from four different battalions, was sent out from Ain Zara with a troop of the Lodi cavalry and some of the Camel Corps to reconnoitre towards Bir-el-Turk. This flying column on reaching Bir-Rodan Scerif, close to its objective, was opposed by some 200 of the enemy, but managed to drive them back and halted there for over two hours. Later a force, estimated to number 1,500 Arabs with some Turkish regulars, attacked the column and endeavoured to cut its line of retreat. The column withdrew fighting to Ain Zara, the Erithrean soldiers proving, it is said, a better match for the Arabs in mobility than European troops. The Italian losses were nine killed and 28 wounded.

Early in the morning of the 10th March some 1,500 Arabs commanded by mounted officers, and supported by Turkish regulars, made vigorous attacks of three-and-a-half hours' duration on the redoubt at Ain Zara. The attack was made on a wide front and the Italians withheld their fire until the enemy arrived at a range of less than 800 yards. The guns in the redoubt fired over 70 rounds and the enemy's losses are believed to have been heavy.

At the close of the action two dirigibles "$P_2$" and "$P_3$" arrived from Tripoli and pursued the enemy towards Bir-el-Turk, dropping bombs from a height of over 3,000 feet. The dirigibles then turned away to the eastward towards Tajura, and when some four miles from Ain Zara discovered a Turkish camp hidden behind some sand dunes. Ten more bombs were dropped from a height of 4,000 feet into the camp and the dirigibles returned to Tripoli after a flight of three hours.

HOMS.—The eastern front of the newly-acquired Italian position on the heights of Mergheb was attacked on the night of the 5th-6th March by Turks and Arabs to the number of some 3,000 men, who were repulsed, it is said, with heavy losses.

OCCUPATION OF SIDI SAID.—Desultory fighting took place on various other occasions during March and April, but by far the most important operation in this portion of the theatre of war was the occupation of Sidi Said and Fort Bu Kemessa, 20 miles west of Zuara (April 10th—12th).

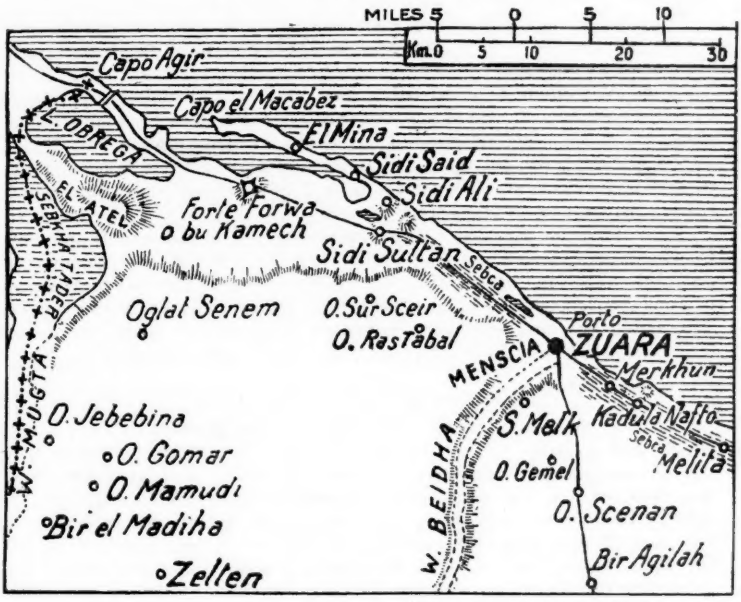
The force employed was as follows:—

*Commander*: Lieut.-General Garioni.

*Troops*: A division organized of the following units:—30th Inf. Regt. from Nocera; 60th Inf. Regt. from Viterbo; 9th Bersaglieri from Asti; 23rd Inf. Regt. from Tripoli; two battns. of 37th Inf. from Tripoli; one M.-G. Section of Ascari (Erithrean Battalion), 50 men; one M.-G. Section Bersaglieri, 50 men; one Field Battery from Homs; one Heavy Battery of the 10th Regt. with four guns; a battalion of Ascari which had arrived from Erithrea, in the Military Transport "Count Cavour."

The strength of the division under Lieut.-General Garioni was about ten to twelve thousand men.

THE NEIGHBOURHOOD OF SIDI SAID.




[*Reproduced from the "Corriere della Sera."*]

The transports employed were the "Minas"; "Bulgaria"; "Sannis"; "Verona"; "Riva"; "Libia"; "Tripolitania"; "Labor"; supported by seven Italian men-of-war and nine torpedo-boats commanded by Vice-Admiral Borea Ricchi.

The operations began on the 8th with a demonstration by 11 torpedo craft against Zuara and the coast to the eastward. A reconnaissance was also made of the deep-water anchorage opposite the village. Next day a portion of the fleet anchored off Zuara, while a feigned landing was made from the transports accompanied by small craft to the eastward. From dawn to 4 p.m. on the 10th the fleet bombarded Zuara, at a range of about 1,300 yards, and in order to hold the Turks to the neighbourhood of that village.

In the meanwhile a division, under the command of General Garioni, had commenced landing very early on the 10th, near the Tunisian frontier, on the Macebez peninsula, which had been chosen as the base of opera-

tions. By noon the greater part of the force had disembarked and the stores began to be landed. It was hoped that the expeditionary force would have reached the mainland at Fort Bu Kemmesa the same evening, but the rough weather delayed matters. At 11 a.m. on April 11th a company of Ascari, with detachments of seamen and engineers, succeeded in crossing the creek between the peninsula and the coast, and occupied Fort Bu Kemmesa without opposition. The naval demonstration at Zuara had succeeded in the meanwhile in holding the Turco-Arabs at that place.

In the evening the Fort was attacked, but the enemy was driven off by the Ascaris and by the guns of the fleet. The disembarkation was completed by 10 p.m. on the 11th April.

The whole operations were conducted with the greatest secrecy, and no hint of the movements appeared in the Press until the landing had been nearly completed.

Fort Bu Kemmesa is 20 miles west of Zuara, 40 miles east of the Tunisian frontier. It commands the caravan route from Sfax into Libya, along which runs the telegraph from Zuara to Ben Gardine and Tunis. The only route now left open for contraband of war from Tunis appears to be that inland from Gharian via Kasr Jefren, Sintan and Nalut, which crosses the frontier 60 miles from the sea.

Comments in the Press while approving of the occupation of Fort Bu Kemmesa consider that Reg Daline, 12 miles south of Zuara, should be occupied. This is, apparently, the headquarters of the Turco-Arabs in this neighbourhood. It is also said that Zuara must be captured, and that mobile columns should be formed in this zone, for which at present it is considered that the Ascari and local levies alone are suitable.

*The Eastern Theatre of Operations.*

DERNA.—At 7 a.m. on the 3rd March a battalion of the 35th infantry, which had recently arrived in the country, and which had been sent out on outpost duty to protect the working parties at Fort Lombardia,[1] was attacked, but succeeded, after three-quarters of an hour's fighting, in driving the enemy back from position to position at the point of the bayonet. The attack was renewed at 11 a.m. by a force which advanced, widely extended, on a front of two and a half miles, so as to avoid loss from rifle fire and to envelop the flanks of the Italian troops.

Three battalions of the Alpini, the 38th and 26th Regiments, with portions of the Ivrea and Verona battalions, and a mountain battery, succeeded in checking the turning movement and in driving the enemy westward to the Wadi-Bu-Msafer. Here the Arabs succeeded in making a stand until three o'clock, in spite of the heavy rifle fire and machine-gun fire from the Italian infantry, supported by two batteries in the Lombardy redoubt. General Trombi ordered forward three more battalions,[2] (the Saluzzo and one each of the 22nd and 40th Regiments) under General Capello, to make a turning movement against the enemy's right. At nightfall only, and after much hand to hand fighting, was the enemy dislodged from this position. A large force of Turkish regulars are said to have taken part in the battle; this doubtless accounts for the stubborn pertinacity of the defence; Enver Bey is

1 See map in March JOURNAL, page 414.

2 Or five according to some accounts.

believed to have commanded the Turco-Arabs, and is said to have been wounded. The Italians' losses were eight officers and 52 men killed and 13 officers and 164 men wounded.

Further fighting took place at Derna on the 15th April. For some days the enemy had been observed to be more active, but at every threat of attack they retired out of range. On the 15th April, however, a serious advance began about midday against the Lombardy Fort. Four guns opened a well-directed fire upon the fort, supported by rifle fire on a front of some three miles.

The garrison of the fort, consisting of four companies of infantry, a field battery and a machine-gun section, was reinforced by a company of Alpini and some guns, but the attack continued until 6.30 p.m. The Turkish guns were well posted and skilfully hidden, but were no match for the Italian artillery. Only three shells, out of over 100 fired, burst in the vicinity of the fort, and the Italian losses were only one man killed and one slightly wounded.

TOBRUK.—On the morning of the 11th March two battalions of the 34th infantry and a mountain battery moved out from the trenches as escort to a company of engineers, who were to trace out a new fort. About midday a considerable force of Turco-Arabs advanced to within two and a half miles of the work. The mountain battery and some guns in a fort opened fire, and two and a half battalions of the 20th infantry were ordered to advance against the enemy's left, whilst the 34th Regiment made two successive frontal attacks with the bayonet, and the 20th infantry moved up and checked a turning movement against the Italian right. At about four o'clock the impetuosity of the enemy's attacks diminished, and shortly afterwards they withdrew.

The Turkish reports assert that the Italians were driven back with a loss of 2,000, but the Italian official account states that one officer and 12 men were killed and three officers and 70 men wounded.

BENGHAZI.—Information having been received that two oases to the north-east of Fojat had been strongly occupied by the enemy, General Briccola ordered Major-General Ameglio on the 12th March to attack and occupy them. The task was entrusted to a column composed of seven infantry battalions, drawn from the 6th, 4th, 63rd, 57th and 79th Regiments, with threee mountain batteries and two field batteries. A cavalry regiment and mounted " friendlies " also took part. The strength of the Turco-Arabs is said to have been 6,000.

The action was begun by a preparatory bombardment of the position by the 6-inch guns in the two redoubts, assisted by the field and mountain artillery; in all 28 guns were in action. The attack was made in two columns, the left consisting of two battalions of the 57th and one of the 79th Regiment, with the field guns, and the right column of two battalions of the 4th and one of the 63rd Regiment; one battalion of the 57th was held in reserve in the centre; the cavalry was massed near the Roma redoubt, to guard the right flank and rear of the attack.

The two columns carried out a flanking movement, extending under a heavy fire, and drove the Turco-Arabs out of the oases. The enemy's losses are said to have been enormous, more than 400 corpses being found in the oases alone. Fighting was over at 2 p.m., but the cavalry continued the pursuit till the evening. The Italian losses are given as three officers and 26 men killed, seven officers and 55 men wounded. The tactics employed call for no comment, but the bravery and tenacity

of the enemy were excellent. Major-General Ameglio was specially promoted to the rank of Lieut.-General on the 16th March.

Considerable numbers of Arabs are reported as arriving from the regions of Ghat and Ghadames to reinforce the Turco-Arab forces in the western theatre. Edhem Pasha, the Turkish commander at Tobruk, has left for Constantinople to recuperate, and has been succeeded temporarily by Nazim Pasha.

### (d) Aeronautics.

The following are some of the most important achievements by aircraft during March and April:—

DIRIGIBLES.—After some preliminary flights in the first week of March the "P2" and "P3" made a reconnaissance on the 12th March of the coast some 16 miles beyond Zanzur and 25 miles from Tripoli as far as Zavia, where a hostile encampment was found; 25 bombs were dropped into it, with some effect. The flight lasted three hours, during which time the dirigibles were frequently fired upon without damage, and dropped bombs into camps, trenches, and caravans.

The practice from a height of some 3,300 feet is said to have been excellent, and the results annihilating. On March 18th, dirigible "P2" carried out another reconnaissance, throwing bombs on the hostile camps beyond Zanzur, and on March 19th both dirigibles went out again, throwing over 30 bombs into four camps near Suani-Beni-Aden.

In April the dirigibles "P2" and "P3" carried out a reconnaissance in the direction of Zuara, flying at a height of 3,600 feet, and travelling altogether 125 miles. Tripoli was left at 8.15 a.m. At Zuara a careful reconnaissance was made over the city, sketches and photographs were taken, and the effect of the recent naval bombardment was noticed; a few bombs were dropped, and the dirigibles returned by 1.15 p.m. Two dirigibles flew from Tripoli to Bu Kemmesa, remaining 12 hours in the air, and only stopping one hour near Zuara where they replenished their store of petrol from the fleet.

"P2" has a crew consisting of a major and two naval lieutenants, and "P3" has a major, a naval lieutenant and an artillery subaltern; so that with mechanics each carries four men.

AEROPLANES.—Capt. Piazza made an aeroplane flight by night, in a Blériot, on the 4th March. Starting at 9 p.m., he rose to a height of about 1,000 feet, passing over the city to the Oasis of Tajura, and returned over the sea to the aviation ground. Shortly after Lieut. Gavotti made a similar flight on a Farman biplane. On the 9th March Capt. Morzo in a Nieuport aeroplane flew in three-quarters of an hour to Gargaresch, Fonduk-Ben-Gascir, Tajura, and back to Tripoli. A few small groups of the enemy were seen at Fonduk-Ben-Gascir and a few camps at Suani-Beni-Aden. When passing over the outposts to the north of the former place he was fired on and one rifle bullet passed through a wing. On the 13th March, the day after the battle of Benghazi, Lieut. Cannoniere made a reconnaissance of the enemy's camp some 11 miles to the southward. A strong wind was blowing and the weather conditions were bad. The aviator's account of his flight is most thrilling, and his aeroplane on several occasions fell great distances. He carried two bombs, which he preferred to launch by hand, by quitting hold momentarily of the lever. On each occasion the action nearly proved fatal, the aeroplane becoming out of hand and the aviator suffering from giddiness.

On the 16th April Lieut. Palma de Cesnola flew from Tripoli to Macabez, a distance of 125 miles, in two hours and 16 minutes.

Successful experiments have been carried out since the outbreak of war at Vigna di Valle on the Lake of Bracciano with a view to improving the bombs and increasing their safety arrangements.

### (e) Neutrals.

MEDIATION.—On March 9th the five great Powers addressed communications separately through their Ambassadors to the Italian Minister for Foreign Affairs to ascertain the terms on which Italy would be prepared to consider the question of mediation. The Italian reply was received on the 15th. According to the Press it stated that Italy could not consider any proposals which did not recognize the annexation of Tripoli.

In April a similar attempt at mediation was made at Constantinople. The Porte's reply to the Powers' communication was handed to the Ambassadors on the 23rd April. It is couched in moderate language, but is believed to set forth as a primary condition for mediation that the Italian troops be withdrawn from North Africa. The Sultan's speech from the Throne at the opening of the Chamber on the 18th April also affirmed the resolve to uphold at all costs Ottoman sovereignty in Tripoli and Benghazi.

The more friendly policy pursued by Austria towards Italy in connection with the annexation of Tripoli appears to have produced a considerable revulsion of Italian national feeling in favour of Austria. Friendly demonstrations of the Roman crowd in front of the Austrian Embassy have taken place lately on several occasions.

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## NAVAL AND MILITARY CALENDAR.

APRIL, 1912.

| | | |
|---|---|---|
| 2nd | (Tues.) | H.M.S. "Swiftsure" arrived at Portsmouth from Mediterranean. |
| 6th | (Sat.) | H.M.S. "Monarch" commissioned at Portsmouth. |
| 7th | (Sun.) | Centenary of the capture of Badajos. |
| 10th | (Wed.) | H.M.S. "Monmouth" paid off at Colombo and recommissioned the following day. |
| 18th | (Thurs.) | Bombardment of the Dardanelles forts by the Italian fleet. |
| 19th | (Fri.) | H.M.S. "Yarmouth" commissioned at Chatham. |
| 23rd | (Tues.) | H.M.S. "Black Prince" paid off at Portsmouth and recommissioned the following day. |
| 27th | (Sat.) | Launch of first-class battleship "Kœnig Albert" from the Schichau Yard, Danzig, for Imperial German Navy. |
| 29th | (Mon.) | Launch of H.M.S. "Maidstone," Submarine Depôt-Ship, from Scott's Yard, Greenock. |
| 30th | (Tues.) | Launch of second-class cruiser "Dublin" from the Beardmore Yard, Dalmuir. |

# NAVAL NOTES.

## BRITISH EMPIRE.

### HOME.

The following are the principal appointments which have been made :—

Admirals—The Hon. Sir Hedworth Meux, K.C.B., K.C.V.O., to be Commander-in-Chief at Portsmouth; Sir Archibald B. Milne, Bart., K.C.B., K.C.V.O., to be Commander-in-Chief, Mediterranean. Rear-Admirals—J. M. De Robeck to be Admiral of Patrols; H. L. Heath to be Admiral-Superintendent of Portsmouth Dockyard. Captains—R. H. Anstruther, C.M.G., to "Tamar" and as Commodore 2nd class, in charge at Hong-Kong; W. H. Cowan, M.V.O., D.S.O., to be Assistant to Admiral of Patrols; W. S. Nicholson to "Gloucester"; A. C. Smith, M.V.O., to "Cumberland"; the Hon. A. D. Boyle, M.V.O., to "Vivid" for command of Gunnery School; V. H. Bernard to "Argyll"; M. Culme-Seymour, M.V.O., to "Invincible"; A. R. Hulbert to "Blonde" and in command of First Destroyer Flotilla; T. L. Shelford to "Venus"; W. Henderson to "Blanche" and in command of Fourth Destroyer Flotilla; E. G. Lowther-Crofton, D.S.O., to "Diamond" and in command of Fifth Destroyer Flotilla; V. B. Molteno to "St. George"; W. D. Church to "Crescent"; E. H. F. Heaton-Ellis, M.V.O., to "King Edward VII."; H. F. P. Sinclair to "Hibernia"; T. D. L. Sheppard, M.V.O., to "Zealandia"; Harry Jones to "Africa"; C. G. Chapman, M.V.O., to "Hindustan"; A. H. Williamson to "Queen"; H. T. Buller, M.V.O., to "Prince of Wales"; E. G. Barton to "Implacable"; H. G. G. Sandeman to "Venerable"; E. H. Grafton to "London." Commanders—F. H. Walter to "Shearwater," and as Commander-in-Charge for Station duties on the west coast of America; G. V. Knox to "Sappho."

#### The Admiral of Patrols.

Rear-Admiral J. M. de Robeck, who has been appointed Admiral of Patrols, hoisted his flag in the "St. George," Depôt-ship, at Granton on the 1st inst., on taking over from the Vice-Admiral commanding the Third and Fourth Divisions of the Home Fleet the command of the vessels serving in the Third, Fourth, and Fifth Destroyer Flotillas (in future to be known as the Fifth, Sixth, Seventh, and Eighth Flotillas) and the Submarine Sections, except those assigned for port defence. The presence of the Admiral of Patrols on the hoisting of his flag was dispensed with. The flag was struck on board the "St. George" at sunset, but may be hoisted in the St. George or any other vessel in the command when the Admiral is proceeding to sea for exercises or inspection.

#### New Floating Dock for Submarines.

The new floating dock, built by Messrs. Swan, Hunter & Co., of Wallsend-on-Tyne, which is to be stationed at Dover for the docking of submarines, has arrived at Sheerness from the Tyne. The dock has a lifting capacity of 1,500 tons, and although primarily intended for submarines, it will be available when required for docking an ocean-going destroyer.

### Launches.

The second-class cruiser "Dublin" was launched on the 30th ult., from the yard of Messrs. Beardmore & Co., at Dalmuir, and she is the second of the three "City" cruisers of the 1910-11 programme to take the water. The "Chatham" was launched at Chatham Dockyard on November 9th last, and the "Southampton" is building at Clydebank. The "Dublin" was designed by Sir Philip Watts, and has a displacement of 5,400 tons. Her armament will consist of eight 6-inch guns, four 3-pounder and four machine guns. Her machinery of the Parsons turbine type with Yarrow boilers, is of 22,000 I.S.P., and designed to give a speed of 25 knots, while the coal capacity is 650 tons.

The submarine Depôt-ship "Maidstone" was launched on the 29th ult., from Messrs. Scotts' yard at Greenock. The vessel was laid down in January, 1911, and her dimensions are as follows:—Length, 320 feet; beam, 45 feet; and a mean load draught of 16 feet with a displacement of 3,600 tons. The "Maidstone" is intended to act as an auxiliary to a submarine flotilla, and will be fitted out with workshops to carry out repairs as well as salvage plant.

## REORGANIZATION OF THE FLEET.

A complete reorganization of the Fleet is now being carried out, and will, in most of its details, be completed this month. The most important of the changes is that the Mediterranean Squadron is to take the place of the present Atlantic Squadron, and will in future be based upon Gibraltar. The following is a general outline of the scheme:—

### First Fleet (Fully Manned).

FLEET FLAGSHIP.

| | | |
|---|---|---|
| 1ST DIVISION (Home Fleet) | becomes | 1st Battle Squadron. |
| 2ND DIVISION (Home Fleet) | ,, | 2nd Battle Squadron. |
| ATLANTIC FLEET | ,, | 3rd Battle Squadron. |
| MEDITERRANEAN battleships | ,, | 4th Battle Squadron. |

The First, Second, and Third Battle Squadrons will be based on the Home Ports, and the Fourth on Gibraltar.

Each squadron will comprise eight battleships, together with attendant cruiser squadrons, flotillas and auxiliaries.

The fully commissioned fleet available for employment in home waters will thus be raised to a strength of 33 battleships. Up to the present, including the Atlantic Fleet, which has till now been based on Gibraltar, it has been 22.

### Second Fleet.

| | | |
|---|---|---|
| 3RD DIVISION (Home Fleet) | becomes | the 5th and 6th Battle Squadrons, based on the Home Ports. |

Each squadron will have eight battleships, with the appropriate cruiser squadrons and flotillas.

These vessels will have full complements of active service ratings always provided. They do not require any mobilization of the reserve which is in civil life.

Half of their crews, including a large proportion of special ratings, are always on board, and the other half, roughly speaking, are in schools and barracks on shore, going through courses of instruction.

The second fleet will raise the strength of battleships in the near seas to 49, of which 33 will be in full commission, always ready.

**Third Fleet.**

4TH DIVISION (Home Fleet) | becomes the 7th and 8th Battle Squadrons, based on the Home Ports.

Each squadron will have eight battleships, with suitable cruiser squadrons.

The ships of the Seventh Squadron will be manned with reduced nucleus crews, and on mobilization the number of these active-service ratings will be increased, and the balance will be supplied by a new force—to be called the "Immediate Reserve."

The Eighth Squadron will be only a material reserve, with maintenance parties.

**Torpedo Flotillas.**

A Seventh Destroyer Flotilla is being formed, and an Eighth is to be created next year.

At present three flotillas, manned by nucleus crews, and certain submarines, are provisionally assigned to the duties of coast defence.

A new command is to be created under an officer to be known as "Admiral of Patrols." The purpose is to enable the battle fleets to operate with the utmost freedom and confine themselves to the prime business of defeating the enemy's battle fleet without being diverted by the necessity of protecting the British coasts from any minor raid or descent, whether naval or military.

## THE CANADIAN NAVY.

The first annual report of the Department of Naval Defence since its inauguration was recently issued. Details are given concerning the organization of the Staff, the establishment of the Naval College at Halifax, and the operations of the "Niobe" and "Rainbow." The total expenditure on the service during the year was £358,000. Down to the end of the year, besides the 21 naval cadets now in training, 233 recruits were registered; of these 185 went to the "Niobe" and 38 to the "Rainbow." Nova Scotia contributed 97 men to the "Niobe," Ontario 45, Quebec 28, Prince Edward Island 11, and New Brunswick three. The recruits for the "Rainbow" were, with the exception of two from Ontario and one from Alberta, all obtained in British Columbia. Neither Manitoba nor Saskatchewan has as yet sent a single man to the naval service.

The section of the report dealing with the hydrographic survey of Hudson's Bay by the ice-breaking steamer "Stanley," does not give a reassuring view of the safety or feasibility of the Hudson Bay route for other than specially constructed craft suitable for encountering ice floes. It is stated that as late in the year as July 22nd the "Stanley" encountered at the north entrance of the bay an ice field extending for 200 miles, requiring great skill on the part of the pilot in finding leads. The Hydrographer concludes that any vessel navigating the bay must be prepared to meet ice. He says:—

"Whilst none of that met with on this voyage could have been dangerous to the "Stanley," or sealers and other specially constructed vessels now trading with this district, I am of the opinion that it might be dangerous to a ship not so built. I certainly do not think any cargo

vessel of ordinary construction would have been able to find or force her way through the large field met with at Fort Churchill, but would have been obliged to remain in the ice until it was loosened by wind or currents."

Apart from the ice, the report indicates that dangers and difficulties in the navigation of Hudson Straits and Bay are by no means insurmountable, arising chiefly from inaccurate or inadequate charting, and from the proximity of the magnetic pole, with the consequent effect upon compasses.

## FRANCE.

APPOINTMENTS.—The following are the principal appointments which have been made:—Vice-Admiral J. C. Gaschard to be Permanent Inspector-General of the Schools and Naval Depôts. Capitaines de Vaisseau—A. Frot to "Charles-Martel"; C. V. Ollivier to "Amiral-Aube"; J. E. Guilhon to "Patrie"; P. A. Ronarc'h to "Bouclier" and command of Flotillas of First Fleet; M. P. Jaurès to "Démocratie"; B. M. Morier to "Condorcet"; J. P. Delage to "Bruix." Capitaine de Frégate—C. F. Soulez to "Glaive" and Cherbourg Destroyer Flotilla.

*Journal Officiel de la République Française.*

### The Late Vice-Admiral Cavalier de Cuverville.

The death is reported from Paris, as the result of a street accident, of Vice-Admiral de Cuverville. The Admiral had a distinguished career in the Navy and a high professional reputation, and he was the only foreign Naval Member of the Royal United Service Institution, which he joined over 30 years ago, and in the JOURNAL of which he always took a great interest.

Born at Allineue, Côtes-du-Nord, on the 28th July, 1834, he joined the Naval School in 1850, becoming an Enseigne de Vaisseau in 1854. He served through the Crimean War and also took part in the Expedition to China (1860). He became a Capitaine de Vaisseau in 1877 and for three years was Naval Attaché in London, making himself extremely popular with all with whom he came in contact. As a Rear-Admiral he commanded the Atlantic Division and brought the negotiations with the King of Dahomey to a successful conclusion. Promoted to Vice-Admiral in February, 1893, after serving two years as Maritime Prefect at Cherbourg, he was appointed Commander-in-Chief of the Mediterranean Fleet. He became Chief of the General Staff of the Navy when M. Lockroy was Minister of Marine, warmly supporting that Minister in all the reforms he introduced. After his retirement in June, 1899, he was elected Senator for the Department of Finisterre, a position he retained until last January.

### Organization of the Destroyer and Submarine Flotillas for 1913.

The plan of organization of the fleet for 1913 includes an important change in the distribution of the Destroyer and Submarine Flotillas.

These flotillas will be placed directly under the command of the Commander-in-Chief at sea; the submarines, however, though under his command, will not form an integral part of the sea-going fleet, but M. Delcassé, in conference with the Maritime Prefects, has arranged that the commander of the fleet shall also have the submarines under his

orders, when he finds himself in the zone of action to which they are attached, and they will, therefore, no longer be under the Maritime Prefects.

This, however, does not mean that the latter officers will have no naval forces for defence purposes; the idea is simply to make a better use of the flotillas by dividing them into offensive and defensive units according to their fighting value.

In the first category will be placed all destroyers and submarines of a large radius of action, and in the second, distributed at the different ports and other points, under the authority of the Maritime Prefects, the sea-going and 1st class torpedo-boats and the smaller submarines. There will, therefore, no longer be any divisional destroyers scattered along the coast, for these will be grouped in efficient divisions co-ordinating with the sea-going squadrons and capable of carrying out distant operations.

The Mediterranean Fleet will henceforth include under a *Capitaine de Vaisseau* (Chef de Division), who will hoist his broad pennant on the 700-ton destroyer "Bouclier," first, three flotillas of 12 destroyers and an additional flotilla in reserve at Toulon, together with the mine-layers "Cassini" and "Casabianca"; and secondly, three groups of submarines for offensive purposes, having bases at Toulon, Bizerta, and Oran.

The 3rd Squadron stationed in the Atlantic will also have its attached flotillas, commanded by a *Capitaine de Vaisseau*, with mine-layers and three groups of submarines, with bases at Calais, Cherbourg and Brest.

The defence flotillas will be stationed as formerly in the naval ports under a *Capitaine de Frégate*, except Lorient. The flotilla at Dunkirk will consist only of torpedo-boats, no submarines. Calais and Lorient will both be bases for groups of submarines and defensive torpedo-boats, and torpedo-boats and submarines will also be stationed at Cherbourg, Brest, Rochefort, La Pallice, Toulon, Bizerta and Saigon.

The new organization will cause a reduction in the effective numbers of the mobile defence of four *Capitaines de Vaisseau*, nine *Capitaines de Frégate*, 91 *Licutenants*, 76 *Enseignes*, 13 senior engineers and 4,214 men, but in reality all these officers and men will remain with the new flotillas, so that the change does not entail any increased expenditure.

### Duties of Junior Naval Officers.

The Minister of Marine has approved of the proposals of the Commission appointed on the reorganization of the *personnel* as regards the junior naval officers.

So as to give these officers more real responsibility the two classes of *Enseignes de Vaisseau* will be united in one class as regards their duty at sea, and these officers will be appointed to the principal ships on distant stations, or to the flotillas of destroyers with the fleets. They will complete two embarkation periods and then be sent to the gunnery or torpedo schools.

The stages in the career of the young naval officer may be summed up as follows:—Two years at the *Ecole Navale*, one year at the *Ecole d'application*, four years embarkation in a sea-going ship for his formation as a seaman and eleven months in one of the specializing schools. After leaving the schools the technical instruction of the officer is completed both as regards navigation and special duties.

### The New Battleships.

The Minister of Marine has selected the names which the three new battleships, to be laid down in conformity with the Naval programme approved by the Chambers, are to bear. The names will continue the geographical series inaugurated with the "France" and "Paris" and will be "Lorraine," "Bretagne" and "Provence"; the first two of these ships were laid down on the 1st inst. at Brest and Lorient respectively, the third is to be built by the Chantiers de la Gironde and will be commenced on the 1st August; she is to take the place of the "Liberté."

The principal characteristics of the new ships will be: Displacement, 23,500 tons; I.S.P., 29,000; thickness of armour belt, 270 mm. (10.6 inches). They will be the same as the "Courbet," as regards their general lines, speed, and disposition of armour, and will have an armament similar to that of the English "Orion," as regards their heavy guns, namely, ten 14-inch in place of the 12 12-inch of the earlier ships. The middle turret will be placed between the funnels, of which there will be two, and the guns of this turret will have an arc of training of 120 degrees on each side. With regard to the anti-torpedo armament, there will be 22 14-inch guns in ten separate groups, in place of the eight groups in the "Courbet."

*Le Temps, Le Moniteur de la Flotte* and *La Vie Maritime.*

## ITALY.

### The Life of Heavy Ordnance.

Commander Ettore Bravetta, of the Italian Navy, an expert on artillery questions, gives in the *Rivista Nautica* the following table of the estimated life of heavy ordnance:—

| Gun and Calibre. | Rapidity of Fire. | Number of rounds possible before disabled. |
|---|---|---|
| 305 mm. (12-inch) 45 calibres | 1 round in 60 seconds | 100 |
| 305 mm. (12-inch) 50 ,, | 1 ,, in 65 ,, | 86 |
| 343 mm. (13·4-inch) ... ... | 1 ,, in 80 ,, | 80 |
| 356 mm. (14-inch) ... ... | 1 ,, in 90 ,, | 75 |
| 401 mm. or 406 mm. (15·8-inch) or 15·9-inch. | 1 ,, in 110 to 120 ,, | 65 |

In France the life of a gun is generally estimated to be longer than given above, the life of the 305 mm. gun being considered to be 200 rounds, which is double the estimate of Commander Bravetta, but it should be noted that the Italians employ a nitro-glycerine description of powder, the erosive effect of which is greater than that of the nitro-cellulose powder used in the French Navy.

## UNITED STATES.

### The Burial of the "Maine."

On the 16th March the battered hull of the U.S.S. "Maine" was sunk with solemn and impressive ceremony off the Havannah, Cuba, in the liberation of which island her destruction had played so large a part. The ceremonies of her entombment in her native element were as simple as the impressiveness of her burial demanded. It was under

a lowering sky, and in a heavy tumbling sea that the wreck, about whose resurrection from the waters of Havana Harbour have clung so much sympathy and sorrow for those who went to their death in her shattered frame, plunged to her sapphire sepulchre with colours flying, thousands of spectators watching the scene from attending ships. Her decks covered deep with flowers and palms, and the U.S. ensign floating from the jurymast, where the mainmast formerly stood, the "Maine," escorted by the cruisers "North Carolina" and "Birmingham," put to sea on her last voyage. As she passed the war-ships, the crews manned ship, the marines presented arms and the band on the quarter-deck played the National Anthem, while minute guns from the forts and ships boomed a requiem. Passing out of the harbour, the flotilla, headed by the "Maine," which was towed by three tugs, proceeded in silence, with all flags at half-mast. The course was almost due north, so as to keep the wreck head-on to the heavy sea.

At 4.35 p.m., a triple blast from the syren of the "North Carolina," followed by one gun, announced that the three-mile limit had been crossed. The U.S. cruisers took up a position to the eastward of the wreck, the Cuban war-ships moved to the westward, and the accompanying vessels were grouped to the north and south. Precisely at five o'clock another syren blast sounded from the "North Carolina," and another gun was fired. The wrecking crew instantly opened the sea valves, and then went on board a tug alongside, which steamed a little distance away. Then all eyes in the convoying fleet were fixed on the wreck, the crews of the war-ships manning the sides.

For ten minutes no change was visible in the trim of the great, rusty, battered hulk, which pitched heavily. As she remained pitching and wallowing each moment she settled deeper and deeper, and at last the stern was seen to rise. In a few seconds the hull was almost vertical, showing first the propellers and then the full keel. The next moment there was a flash of blue and white, as the great ensign flying from the mast struck the waves and disappeared. Simultaneously the decks were blown up by the air pressure, and with incredible velocity the "Maine" plunged down, leaving no trace save flowers tossing on the surface of the sea. Twenty minutes elapsed from the opening of the valves until the vessel disappeared. The depth of water where the "Maine" plunged is estimated to be not less than 600 fathoms.

It may be recalled that the "Maine" was treacherously blown up by a submarine mine on the night of the 15th February, 1898, while lying in Havana Harbour, 272 officers and men being killed. Her destruction was one of the causes which led to the war with Spain. After lying for several years at the bottom of the harbour, the work of raising her was undertaken by the engineer corps of the U.S. Army, who succeeded in salving the wreck by means of a cofferdam, which was built round her, the work being completed last autumn.

### The New Battleships "Nevada" and "Oklahoma."

The keels of these two ships have recently been laid, and they promise, when completed, to be two of the most formidable ships afloat. They are 500 tons larger than their immediate predecessors the "New York" and "Texas." Their principal dimensions are as follows:—

Length over all, 583 feet; beam, 95 feet 2⅛ inches; mean draught, 28 feet 6 inches. On this draught the displacement will be 27,500 tons.

The " Nevada " will be driven by Curtiss turbines, and the " Oklahoma " by reciprocating engines. The boilers in both ships will be fired exclusively with oil, and they will carry no coal. The estimated speed is 20.5 knots.

The armament will consist of ten 14-inch guns, carried in four turrets disposed as follows:—On the forecastle deck will be first a three-gun turret; then firing over it a two-gun turret. On the quarter-deck will be a two-gun turret firing over a three-gun turret placed abaft it. This arrangement will give a concentration of fire superior to that obtainable from the ten 14-inch guns of the " New York " and " Texas," which will be mounted in five two-gun turrets.

The new 14-inch 45-calibre gun is a far more powerful weapon than the 45-calibre 12-inch gun mounted in the " Delaware " and " North Dakota." The muzzle energy of the 12-inch gun is about 49,000 foot tons, whereas that of the 14-inch gun is about 66,000 foot tons, while its shell weighs 1,400 lbs., as compared with the 870 lbs. of the 12-inch.

The armour protection is much greater than that of any other ship built or building. The belt will be 17 feet six inches in width and, at mean draught, it will extend from nine feet above to eight feet six inches below the water. It will have the unprecedented thickness of 13½ inches, which it will maintain from its upper edge down to within a few feet of its bottom, where it will begin to taper to a minimum thickness at the bottom of eight inches. Very rarely, if ever, will the bottom edge of this deep belt be rolled out of water, exposing the thin plating below. This belt will extend for over 400 feet along each side of the ship. It will terminate well forward of No. 1 barbette, where it will be carried, with the same depth and thickness entirely across the ship. At its after end the belt armour will be carried at its full depth of 17 feet six inches to a point about 30 feet aft of No. 4 barbette. Here there will be a jog, the depth of the belt decreasing from 17½ feet to 8½ feet, at which depth it will be continued aft for another 60 feet. Transverse bulkheads of the same thickness as the belt will here be carried across the ship. The torpedo-defence guns will have nothing in front of them except the ordinary ½-inch or ⅝-inch plating of the ship's side, which may very well allow shells to pass through without bursting.

An important feature of the side armour is the manner in which the plating will be laid on the ship. Hitherto the armour has been placed horizontally, in two strips, with a continuous horizontal joint, located slightly above the water-line, between the upper and lower strip. This had the disadvantage that it presented a continuous line of cleavage, near the water-line, and, therefore, at a most vulnerable point. In the new ships the armour plates are laid vertically, the joints being vertical and the plating extending the whole depth of the belt without any continuous joint at the water-line. This is a most important improvement which will add greatly to the protective power of the side armour. Associated with the heavy belt in the work of protecting the ship's stability are two protective decks—a lower deck one-and-a-half inches thick on the flat which will slope along the sides to a junction with the bottom of the armour plate eight-and-a-half feet below the water line. The slopes of this deck are two inches in thickness. On the deck above (the gun deck) is an upper protective deck, three inches in thickness.

Equally massive is the armour protection for the main gun positions. The barbette armour extends, with a thickness of 13 inches, from the

turret down to the upper protective deck, and from the upper to the lower protective deck the thickness is reduced to four-and-a-half inches—this because of the 13-inch protection provided by the side armour. The turret armour is equally massive. The port plate is 16 inches on the two-gun turrets and 18 inches on the three-gun turrets, and the side and rear armour is ten and nine inches in thickness, while the roof carries five inches of armour.

The battle of the Sea of Japan showed how important it is to thoroughly protect the positions from which the fighting of the ship is controlled, and particular attention has been given to this in the new design. The conning tower and the signal station back of it are each protected by no less than 16 inches of armour, and to protect the communications—telegraph and telephone wires, voice tubes, etc.—the section upon which conning tower and signal station are supported has walls of 16-inch armour, which are carried down to the protective decks.

The new ships will have only one funnel, and thereby hangs a tale. As already stated the ships will burn oil fuel exclusively. This has enabled the designers to dispense entirely with coal bunkers—the oil being carried chiefly in the double bottoms of the ships. The omission of bunkers sets free a large amount of space below decks, which has enabled the designers to concentrate all of the six boiler compartments at the centre of the ship, where they occupy only 65 feet of her length. Hence, it was possible to use only a single smokestack, placed immediately above the boiler rooms, and hence, again—and this is the important point—it was found possible to place round the whole of the uptakes a massive redoubt of inclined armour with walls everywhere 13 inches in thickness. This redoubt extends from the upper protective deck to the spar deck, and that portion of the smokestack and uptakes which is within the structure of the ship will be completely protected against perforation, thus preventing the escape of poisonous gases among the crew, which proved so disastrous to the crews of the Russian ships.

*Precis from Scientific American.*

# MILITARY NOTES.

## BRITISH EMPIRE.

APPOINTMENTS.—The War Office announces that the King has been pleased to approve of the appointment of Major-General E. C. Bethune, C.V.O., C.B., commanding the West Lancashire Division, Territorial Force, to be Director-General of the Territorial Force, with effect from June 3rd next, vice Major-General J. S. Cowans, C.B., M.V.O., who on that date assumes the appointment of Quartermaster-General to the Forces, in succession to Lieutenant-General Sir H. S. G. Miles, K.C.B., C.V.O.

TERRITORIAL FORCE.—The Secretary of the War Office announces that according to the latest returns received, the strength of the Territorial Force, on the 1st instant, was 9,382 officers and 269,173 non-commissioned officers and men. The non-commissioned officers and men are thus within 12 of the highest strength which they have hitherto reached, viz.: 269,185 on April 1st, 1910. In the first quarter of 1912, there were 21,877 recruits, the highest number in any similar period since the second

quarter of 1909. After allowing for the wastage during the quarter, there was a net increase in the strength of 12,665 non-commissioned officers and men. This number compares with net increases of 7,149 and 7,015 respectively in the corresponding quarter of the two previous years. The re-engagements during the quarter totalled 16,290, as against 17,204 and 12,453 in the corresponding quarters of 1910 and 1911 respectively.

**Dominions, Colonies, and Protectorates.**

AUSTRALIA.—Brigadier-General J. M. Gordon, Commandant of New South Wales, has been appointed Chief of the Commonwealth Section of the Imperial General Staff, in succession to the late Major-General J. C. Hoad.

BERMUDA.—Lieut.-General Sir G. M. Bullock, K.C.B., has been appointed Governor and Commander-in-Chief of Bermuda, in succession to the late Sir F. W. Kitchener, K.C.B.

EGYPT.—The western terminus of H.H. The Khedive's private railway is to be at Mersa Matruh, a natural harbour 180 miles west of Alexandria. In February last railhead, metre gauge for construction purposes, had reached a point near the coast about 30 miles east of Mersa Matruh. The permanent line, gauge 4 ft. 8½ ins., is only laid as far as Dabaa, about 100 miles west of Alexandria.

SUDAN: CREATION OF AN "EQUATORIAL BATTALION."—The increase of territory consequent on the reversion of the Lado Enclave to the Sudan has aggravated the problem of providing adequate garrisons of regular troops in the southern districts without weakening the "striking force" stationed at Khartoum. The number of volunteers who come forward annually for enlistment in Sudanese battalions is but little in excess of that required to maintain present establishments, and additional recruits are difficult to obtain. The upkeep of the Sudanese regular battalions is, relatively speaking, expensive as regards transport and equipment, and other circumstances militate against the desirability of employing them permanently in these southern and Pagan districts.

An experiment is now being made which, if successful, will gradually replace the regular Sudanese units garrisoning the Mongalla, Bahr-el-Ghazal and Upper Nile provinces by troops locally enlisted, and paid, fed and clothed according to local requirements. A headquarter staff and two companies are now being raised in Mongalla province. The force will be called the "Equatorial Battalion" (in Arabic *Orta Khat el Istiwa*), and is intended to be an irregular force as regards transport and equipment, etc., officered by British and Sudanese officers, and enlisted for local service.

MONGALLA PROVINCE.—Three small columns have been operating against the Beirs. The southern column, who encountered no opposition, returned to Mongalla on February 10th. The northern and central columns, under Major Drake, proceeded northwards to the Pibor River in which direction the Beirs were said to be collecting. Reports from this column announce the capture of many hundreds of cattle and the flight of the enemy. The recalcitrant Beir chiefs are now awaiting a favourable opportunity to make their submission. The troops of the patrol were due to arrive at Abwong on the Sobat river early in April.

ANUAK EXPEDITION.—A punitive expedition against the Anuaks on the eastern border of the Sudan started in February from Khartoum. It

consisted of 11 British and 21 Egyptian officers and 407 other ranks under the command of Major Leveson, 18th Hussars. The objects of the expedition were to check the arms traffic, to punish the Anuaks for their recent raids on the Nuer tribe, and to obtain information with a view to determining the lines on which an administrative policy may be best developed.

On the 15th March the expedition reached Odongo on the river Oboth, where the enemy was found in some force. Fighting took place in thick bush; the Anuaks retreated and Odongo and the surrounding villages were captured, but not without some loss. The following casualties occurred:—Captain J. W. Lichtenberg, D.S.O., Captain C. E. Kinahan, three Egyptian officers, and 42 N.C.O.'s and men killed; one Egyptian officer and 12 N.C.O.'s and men wounded. The Anuaks, who lost heavily, fled, and Major Leveson, destroying the abandoned positions of the enemy, returned to the Akobo post which he was expected to reach on the 31st March.

SOMALILAND.—Owing to the Mullah's movements, three companies (nine officers and 335 men) of the 18th Infantry under Colonel Drake-Brockman were sent at the request of the Commissioner of Somaliland from Aden to Berbera, where they arrived on March 1st.

## India.

BUDGET.—The Indian Budget shows a final estimated surplus of £2,750,000.

THE NICHOLSON COMMITTEE.—According to the Press, the committee appointed by the Governor of India to enquire into military policy and expenditure in India will consist of:—

President:—Field-Marshal Sir William Nicholson; Sir William Meyer, Chief Secretary to the Government of Madras; Lieut-General Sir Robert Scallon, Commanding Burma Division; Lieut.-General Sir Percy Lake, C.G.S., India.

NORTH-WEST FRONTIER.—Some unrest, instigated by the Mulla Powindah, was reported on the Mahsud border at the end of February, and the garrison of the Derajat was reinforced. The position has, however, improved.

The outlaws in Khost may again become a source of serious trouble, as they appear to be encouraged by the Governor of Khost and to have enlisted the assistance and sympathy of Sardar Nasrulla Khan.

ASSAM.—The withdrawal of the Abor Expeditionary Force before the break of the heavy rains in April has begun. Survey work has been impeded by continued bad weather during March, but the courses of the Yamne and Dihang Rivers have been corrected, and other geographical data ascertained. A bridged road (understood to be passable throughout for pack mules) has been constructed from Pasighat to Yambung. Police posts are to be left at Kobo and Pasighat.

The Miri Mission was attacked on 14th February last, but suffered no casualties. It is now returning, having explored the valley of the Subansiri River, and worked northward into the hill country.

The Mishmi Mission returned to Sadiya at the end of February to avoid being cut off by the rise of water in the snow-fed rivers, and has now demobilized.

The position of Rima has been fixed at Long. 28° 27′; Lat. 97° 3′; being 19 miles further north, and seven miles further west than shown on previous maps.

## AUSTRIA-HUNGARY.

MANŒUVRES.—It is reported that the manœuvres of the VIIth and XIIth Army Corps, in which some 70,000 men will participate, are to take place between the 8th and 11th September.

THE ARMY BILL.—It will be remembered that the introduction of the new Army Bill into the Hungarian Parliament proved to be the signal for a strong movement, headed by the Kossuth and Justh parties, for more complete national independence in Hungary.

The Premier, Count Khuen Hedervary, was forced, in order to maintain his position, to attach certain clauses to the Bill, which, apart from other separatist tendencies, abrogated the power of the King-Emperor to call out reserves and retain time-expired men with the colours. The clauses would, in fact, have produced the result that, in critical times, the will of the Hungarian Parliament, rather than the will of the Emperor and central Imperial authorities, would have dominated the military and political situation. After protracted but fruitless negotiations between the Emperor, the Hungarian Premier, and various groups of the Hungarian Parliament, a new situation was produced by the declaration of the Emperor, that he would sooner abdicate than submit to what he considered not only an abrogation of his own rights, but also a danger to the interests of the Empire as a whole. The Premier then decided to drop the resolution in which the objectionable clauses were embodied, and to enter on fresh negotiations with the Kossuth and Justh parties. These negotiations, however, failed; Count Hedervary has resigned, and Doctor Lukacs has been entrusted by the Emperor with the formation of a new Cabinet. The standing orders of the Hungarian Chamber enable 20 Deputies successfully to obstruct any measure at any moment for an indefinite length of time. This matter is apparently to be dealt with by the new Cabinet, and its settlement will probably precede any settlement of the larger questions at issue.

BUDGET: NAVAL AND MILITARY ESTIMATES, 1912.—The Common Austro-Hungarian Budget for 1912 was published on April 15th. The total joint expenditure will amount to £19,620,833. The Army expenditure is £15,737,500, an increase of £783,333 over that of 1911. The Navy expenditure is £2,987,500, an increase of £145,833 over last year. Extraordinary credits of £791,666 for the Army, and £2,791,666 for the Navy are also asked for. The sum demanded for provision of motor balloons, flying machines, etc., is £28,333.

## BULGARIA.

POLITICAL.—At the beginning of March three incidents occurred on the Turco-Bulgarian frontier between Adrianople and Philippopolis, which at first sight appeared to be of a serious nature, both Bulgarian and Turkish soldiers being involved. Order was, however, soon restored, and later investigations showed that the encounter had no political significance, and arose from one of the numerous attempts to smuggle goods across the Bulgarian frontier.

Reports from Sofia point to a more peaceful outlook in the Balkan Peninsula. The *Politische Correspondenz* in an article dealing with this subject, declares that competent authorities in Sofia after a careful examination of the political conditions obtaining in the Turkish provinces, are of opinion that there are no indications of a warlike or revolutionary

attitude on the part of the population. In order to show their strictly neutral attitude as regards the Turco-Italian War the Bulgarian Government refused permission for the transport through Bulgaria of eight aeroplanes intended for the use of the Turkish Army.

ARMY.—A Bill for the establishment of a military academy has been read for the third time in the Sobranje. Only 20 officers will be taken each year at this Academy, they will be trained in General Staff duties, and must have at least four and not more than eight years' service.

Fortress manœuvres will take place on August 25th; the troops exercised being the 4th and 5th Divisions, reinforced by several classes of reservists. These divisions have their headquarters at Shumla and Ruschuk respectively.

RAILWAYS.—The line Mezdra—Uraca—Vidin, which is already completed will be opened to traffic during 1912. This line taps the N.W. corner of Bulgaria, and forms a valuable link with the Rumanian railway system, which will shortly be completed to Calafatu (on the Danube opposite Vidin).

## FRANCE.

STAFF COLLEGE.—New regulations concerning the Staff College have been published. After 1914, a candidate must not be older than 37 at the date of examination. Officers who, without being graduates of the Staff College, wish to enter for the examination for the p.s.c. certificate, must be over 39 at the date of examination. The Minister of War has signed a decree authorizing a course of English lectures as part of the curriculum of the Staff College.

BUDGET.—The Budget for 1913 has been distributed to Members of Parliament. It proposes an expenditure of £186,586,621, which is an increase of more than six and a half millions over the estimates for 1912. The increase for national defence is £3,000,000, shared almost equally between the Army and the Navy.

### Marocco.

SUPPLEMENTARY CREDIT.—The supplementary credits required for the operations in Marocco during 1911 amounted to £2,410,000. The total cost of the military occupation of Marocco since the occupation of Udja in 1907 to December 31st, 1911, has been about £5,500,000.

PROTECTORATE TREATY.—On March 30th the Sultan signed the Treaty which transformed Marocco into a French protectorate. The Treaty is on similar lines to that concluded with the Bey of Tunis. By its provisions the French Government is to safeguard the religious position and traditional prestige of the Sultan, and undertakes the maintenance and reform of the Maghzen. Administrative measures are to be proposed by the French Commissioner and promulgated by the Sultan. The practice of Islam and its religious institutions are not to be interfered with. The French are empowered to carry out any military occupations that are deemed necessary and are to control all police services in their sphere of influence and in Maroccan waters. The special questions of the future administration of Tangier and the delimitation of the Spanish sphere of influence are reserved.

MILITARY OPERATIONS.—During March a certain amount of unrest continued to exist in the French zone of influence. In the Zemmur

district there were two engagements between mal-content natives and French columns under Colonels Brulard and Taupin, in which the French losses amounted to eight killed and 49 wounded. The Zemmurs were dispersed in both cases. On the right bank of the Muluya, a French column under Colonel Pinoteau attacked the Beni Warain tribesmen on March 18th, and successfully dispersed them after six hours' fighting, in which the French lost ten killed and 25 wounded.

The unrest throughout the country increased during April.

(a) On March 30th, 1,200 Shereefian troops under Captain Hergaut were attacked six miles N.E. of Sefru by a force of 3,000 Moors, mainly of the Beni Warain and Ait Yussi tribes. After an action lasting four hours the Moorish force was defeated and pursued for some distance. The Shereefian losses were five killed and 15 wounded.

(b) On April 5th, a force under General Ditte, which was moving through the country south of Suk-El-Arba, was attacked by a *harka* from the Zemmur and Zaian tribes. The Ditte column of 1,800 men succeeded in beating off their opponents after 13 hours' fighting, in the course of which the French casualties amounted to 15 killed and 47 wounded. The column subsequently returned to Suk-El-Arba.

(c) In consequence of the action fought on March 18th by the Pinoteau column near the River Muluya, a column of 2,300 men under Lieut.-Colonel Feraud was sent to make a military promenade through that district. On April 9th it was attacked by 3,000 men of the Beni-Warain, while camped on the El Hammam stream some 20 miles south of Merada. The action lasted three hours, and the French gained an important tactical success. 200 dead Moors were picked up on the field; the French losses amounting to 20 killed and 63 wounded.

MUTINY AT FEZ.—On April 17th a mutiny occurred among the Shereefian troops at Fez, the ostensible reason of which was a readjustment of pay by which the troops were to have a proportion of their pay stopped for their messing, instead of feeding themselves. A dislike to carrying a pack is also mentioned as an ostensible grievance. The trouble began in one of the cavalry regiments and gradually spread to the infantry and artillery. The mutineers released the prisoners in the jails and were joined by the rowdy element of the population; they then proceeded to loot and massacre in the Jewish quarter, and to besiege the houses of Europeans. In the evening a detachment of French Tirailleurs entered the city after a sharp engagement, and occupied the hospital quarter, where the French Residency is situated. On the 18th General Brulard confined himself to the defence of the hospital quarter, and an artillery bombardment of the northern ramparts. The looting of the Jews continued. At 5 a.m. on the 19th a relief column of six companies, three squadrons and a battery arrived from Mekinez, having marched 33 miles in 26 hours. They entered the town after a sharp engagement, and succeeded in breaking the back of the insurrection, taking prisoner 1,000 mutineers. On the 21st General Moinier arrived from the Casablanca district at the head of two troops of cavalry, nine infantry companies, and a battery of artillery. Since his arrival the town has remained relatively quiet.

The number of French casualties is said to be 65: 12 French civilians and 17 military instructors are known to have been killed, while the Mekinez column lost eight killed and 25 wounded in their action at the city gate. 51 Jews have actually been buried, but the number killed is probably considerably in excess of that number.

RESIDENT GENERAL.—General Lyautey, now commanding the Xth Army Corps at Rennes, has been appointed Resident General in Marocco. This officer is the most distinguished "soldier-administrator" in France. The firm and able policy which he initiated along the Marocco-Algerian frontier when High Commissioner there is the latest, as it is probably the most brilliant, of his achievements.

DISTRIBUTION OF FRENCH TROOPS.—The distribution of French troops on April 21st is stated officially to be as follows:—

1. Shawia (Colonel Redier), Casablanca, 2,500; Shawia district, 2,300; total, 4,800.
2. Rabat-Salé (General Ditte), Rabat, 2,200; Post in Zaer Zemmur country, 2,900; Tiflit, 1,310; Suk-El-Arba, 590; Flying column, 1,800; total, 8,800.
3. Mekinez (General Dalbiez), Mekinez, 2,500; Fez, 4,760; total, 7,260.
4. Convoys and "goums," total, 5,710.
5. Shereefian troops, Fez, 4,000; Sefru, 1,000; Kasba-el-Hadjeb, 1,000; total, 6,000.
6. Algerian frontier, 10,400. Grand total, **42,970.**

## GERMANY.

THE DEFENCE BILLS.—The Chancellor introduced the new Defence Bills on April 22nd. Herr Bethmann Hollweg maintained that though there was at present no fear of war it was necessary to provide these increases "not only for warding off attack, but for guarding their position in peace, and securing their welfare at all times." The Ministers of War and for the Navy followed the Chancellor in upholding the necessity for the increases. The Socialist speakers made a general attack on militarism. The debate continued through the following days, and the Bills were referred to the Budget Committee on the 25th, while the financial proposals involved were referred to a Special Committee. It is apparently hoped that the Bills will become law before Whitsuntide.

The new Army Bill provides that the provisions of the Peace Strength Law of 1911 are all to come into force by October 1st, 1912, instead of being spread over four years to 1915. Two new Army Corps, with requisite staffs, etc., are to be formed, partly from divisions and brigades in excess of the normal two divisions of two brigades each in each Army Corps, and partly by the creation of new units of artillery, pioneers and train. Fourteen new battalions for 14 out of the 33 infantry regiments with only two battalions are to be formed, and in addition, Saxony is to have a new infantry regiment. Every regiment, instead of only one in each brigade, is to have a machine-gun company. A new cavalry regiment is to be formed in Prussia, and an increase is contemplated in Bavaria in cavalry.

The peace establishment of a number of infantry regiments and field artillery *Abteilungen* [1] is to be raised.

A number of new appointments for officers are to be created, thus increasing the peace establishment by 1,302 officers, including 25 Generals. The pay of the rank and file is to be increased. The addition to the peace strength amounts to some 29,000 men.

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[1] Corresponds to a British F.A. Brigade.

The additional cost of these measures will be as follows:—

1912, £4,100,000; 1913, £4,950,000; £1914, £3,800,000.

MANŒUVRES, 1912.—The following official announcements have been made:—

The infantry battalions of the IIIrd and IVth Army Corps, which are taking part in the Imperial Manœuvres, are to be made up to strengths of 700 non-commissioned officers and men by means of reservists.

Attack exercises with blank ammunition will be carried out during the manœuvres of the Ist, IXth, and XIVth Army Corps.

The Guard Cavalry Division will be concentrated for a three days' "battle training" on the Döberitz training ground.

Pioneer manœuvres will take place under the Ist Pioneer Inspection at Posen, and under the 2nd on the Rhine between Mainz and St. Goar.

The Communication Troops are to take part in railway manœuvres.

The dates of manœuvres and choice of country are to be settled with due regard to harvest conditions, etc.

Train *personnel* can be drawn from army corps which are not taking part in these manœuvres.

All dismounted troops must be back in quarters by 30th September, 1912, at the latest.

TRAINING OF RESERVISTS.—Two reserve infantry regiments of the IXth Corps are to be formed for training this year—one from 12th to 25th April and the other from 9th to 22nd May.

FIELD HOWITZERS.—In future each division, instead of only one division in an army corps, is to have an *Abteilung* (three batteries) of field howitzers.

SIGNALLING.—New signalling regulations were issued in December, 1911, from which it is evident that greater attention is being paid than heretofore to this means of communication.

SHIELDS FOR INFANTRY.—Experiments are being carried out with steel plates of some ten lbs. weight to provide protection for infantry lying down.

ENTRENCHING TOOLS.—Field artillery are to be provided with light entrenching tools in addition to those carried in the wagons.

TELESCOPIC SIGHTS FOR MACHINE-GUNS.—It is reported that machine-guns are to be provided with telescopic sights.

RANGE FINDERS.—It is stated in the Press that a new range finding instrument is to be issued to every battalion of infantry.

RAILWAYS.—The Belgian papers are discussing a projected railway 30 miles long, from Reuland to Irrel and thence to Treves parallel to the frontier of Luxembourg. This would be a continuation of the Aix la Chapelle—Weismes (Malmédy)—St. Vith line.

Belgian newspapers report that considerable progress is being made with the Stavelot tunnel, with the result that the railway between Stavelot and Malmédy should be completed during the present year.

## GREECE.

MANŒUVRES.—The Grand Manœuvres will be held in Bœotia, in the neighbourhood of Thebes and Athens. The date has not been definitely fixed for the commencement of manœuvres, but it will probably be at

the end of May or beginning of June. About 43,000 men will be under arms this year, of whom 20,000 will take part in the exercises. Divisional manœuvres were being carried out in Thessaly at the end of April, under the supervision of General Eydoux and the other officers of the French Military Commission which drew up the reorganization scheme for the Greek Army.

ESTIMATES.—The Military Estimates for 1912 show an increase of over £100,000 above those of 1911; they provide for a force of 1,888 officers, 22,060 non-commissioned officers and men, and 3,446 horses.

Under the new army organization scheme it is said that an army of 110,000 fighting men can be mobilized, but this figure should be accepted with reserve.

## JAPAN.

OBITUARY.—Lieut.-General Baron Matsunaga, who commanded the 3rd Brigade belonging to the 2nd Division during the Russo-Japanese War, is dead. At the time of his death, he was commanding the 2nd Division in Korea.

General Baron Nishi, whose death is likewise announced, commanded the 2nd Japanese Division during the earlier part of the Russo-Japanese War. He was then transferred to the post of Inspector-General of Communications in Manchuria. Since the war he has held the post of Director of Military Education and Training. In 1907 he came to England with an official mission under Prince Fushimi.

Lieutenant-General Baron Ishimoto, who was Japanese War Minister, is also dead. This Minister, who only succeeded General Count Terauchi last year, was born in 1854; he studied in France; took part in the war of the Satsuma Rebellion; commanded an infantry regiment during the war against China; and was Vice-Minister during the Russo-Japanese War, and up to the time of his appointment as War Minister.

His successor, Lieutenant-General Baron Uehara, was born in 1859, and likewise studied in France. He was on the staff during the war against China; attended the Czar's Coronation and the Hague Conference; was Chief Staff Officer to and son-in-law of the late Marshal Nozu, Commander of the N. Army, during the war against Russia; thereafter became Inspector of Engineers and Commander of the 7th Division; and was appointed to his present post from the command of the 14th Division, which he took up in 1911. The appointment of Lieutenant-General Uehara was received by the public with some surprise, because the General does not belong to the Choshu, but to the Satsuma clan, while the former clan practically controls the Japanese Army.

MANŒUVRES IN 1912.—According to the Japanese Press the troops to take part in the interdivisional manœuvres, 1912, will be the 10th and 17th Divisions. Operations will last for three days from the 7th November, 1912.

The troops participating in the Grand Manœuvres will be: the Guard, 1st, 13th, and 14th Divisions; one "mixed" brigade, composed of 2nd Reservists (Kobi); three artillery brigades of 12 batteries each; two cavalry brigades (20 squadrons); the 1st Heavy Artillery Brigade; the Communication Brigade (telegraph, railway and aircraft units).

Special cavalry manœuvres will precede the Grand Manœuvres. Heavy Artillery Manœuvres will take place at the foot of Mount Fuji.

OVERSEA GARRISONS.—The following announcements are taken from the Japanese press:—

The 8th Division was to relieve the 2nd in Korea during March, 1912. One company each from the infantry regiments of the 4th, 6th and 11th Divisions, forming 3 independent battalions, were to be detached to Korea during March, 1912, to relieve those from the 8th, 13th and 14th Divisions; these will form a part of the Independent Brigade stationed in the southern part of Korea. One company of the Telegraph Battalion at Nakano has been ordered to proceed to Manchuria.

JAPANESE LOYALTY TO THE THRONE.—The following affair, although unimportant in itself, is of interest as showing the Japanese mental attitude towards the Throne.

Owing to a slight accident, the train on which the Emperor is travelling is detained for two or three hours. The responsible railway official commits suicide to show his mortification. The Emperor makes a grant of £50 to the family of the dead official as a token of condolence, and a local society announces its intention of erecting a monument. The distinguished President of the Kyushu University writes to the local newspaper to protest against the monument as intended to extol what, in his opinion, is a needless waste of life. The local society is outraged by the "rebellious" utterances of the President, and demands his resignation. The account from which this is taken adds "A change in the Presidency is expected."

## OTTOMAN EMPIRE.

POLITICAL.—As anticipated, the Committee candidates have again secured a large majority in the Chamber, which was opened by the Sultan on the 18th April. It is believed that the return to power of the Committee is perhaps best for the stability of the Empire in present circumstances.

FINANCE.—The preliminary budget figures for 1912 (1328) show a deficit of £T4,076,403. Both naval and military figures show slight decreases.

ORGANIZATION.—The IIIrd Cavalry Inspection and the cavalry brigades belonging to the three Kurdistan Army Corps, i.e., IXth, Xth, and XIth, have been broken up. Of the six regiments concerned, three are still allotted to those corps; the other three, together with a new regiment to be formed (the 39th) will be allotted as "model" regiments to the four Tribal (irregular cavalry) divisions. The latter regiments are of four squadrons only, the fifth squadron from the original three regiments with one newly-raised squadron, forming the new regiment.

The headquarters of the 30th Division has been transferred from Erzinjan to Baiburt.

Hadi Pashi, from Inspector-General of the IInd Inspection, has now been appointed C.G.S. in place of Izzet Pasha, who is still in the Yemen.

Reservists were being summoned in March from various localities in Asia to keep the majority of the *Nizam* battalions in Europe to a strength of 600. About 4,000 reservists have also been called up in Syria for local training.

MACHINE-GUNS.—A British firm has secured the contract for the supply of a number of machine-gun pack saddles, the pattern being that of Schaller, an Austrian make.

GENDARMERIE.—Some considerable increases are foreshadowed in regard to the numbers of the Gendarmerie, especially in the Macedonian localities.

Other changes are in prospect, including the reconsideration of the question of the employment of foreign officers.

At the end of 1910, the strength of the " reformed " Gendarmerie in the Turkish Empire had reached the figure of 30,000 (106 battalions) out of a proposed establishment of 50,000.

ALBANIA.—The Minister of the Interior, at the head of the Commission appointed to enquire into the condition of Albania, has not been well received on the whole, and the Albanians are sceptical about the real objects of the mission. It was reported on the 20th April that troops were being despatched to Yakova to deal with some insurrectionaries in that neighbourhood.

MACEDONIA.—An attack has been made on the Turkish Commission now investigating the condition of affairs in the province. Two Turkish officials arrived at Sofia on the 16th March to sound agents of the Macedonian Committee as to the conditions upon which the latter would withdraw their support from " bands " in Macedonia; the result of the visit was, however, unsuccessful. Bulgarian delegates are making a tour of the European capitals to enlist sympathy on behalf of the Macedonian inhabitants, and two of them reached London in April.

The court-martial appointed to investigate the riots which took place at Ishtib last November has passed sentence. Forty-three persons have been condemned, of whom 37 are Mohammedans, four Jews, and three Christians. The sentences vary from a month's imprisonment to hard labour for life. The sentences have been ratified by the Sultan.

CRETE.—No further steps have yet been taken in regard to the re-occupation of the island by international troops. The Cretan Committee, however, show no signs of meeting the wishes of the Powers, and have, in addition to other actions at variance with the " status quo," definitely elected deputies to attend the Greek Chamber. It is understood that M. Venizelos, who has again been returned to power in Greece, will advise that these deputies shall not be received, and has, to that end, temporarily postponed the meeting of the Greek Assembly. The Cretans, however, profess themselves determined to take their seats when the time arrives. The naval forces of the three protecting Powers have been increased to nine vessels.

YEMEN.—It was reported in March from Cairo that, notwithstanding the assistance rendered to Seyyid Idrissé by the Italians, Turkish columns have succeeded in dispersing the Pretender's followers. In this they were assisted by a force sent from the Imam Yahiya.

A report from Hodeidah, dated the 18th March, gives the following dispositions for the concentration of troops against Seyyid Idrissé:—

Zahra (25 miles south-east of Loheia): a garrison of three battalions, recently reinforced by 11 battalions, two Q.F. mountain batteries and one machine-gun company.

Zaidyia: A garrison of two battalions (of which one *redif*), recently reinforced by five battalions.

Loheia: Four battalions (of which two *redif*), one and a half mountain batteries, and one machine-gun company.

Hodeidah: Two battalions (of which one *redif*).

The force at Zahra is commanded by Hamdi Pasha, an Albanian officer, and that at Zaidyia by Nourreddin Bey, also an Albanian.

RUSSIA, TURKEY, AND PERSIA.—It appears that in March considerable anxiety was certainly felt in Turkish Government circles in regard to

Russian military movements in the Caucasus, although M. Sazonov denied that any measures were contemplated beyond replacing troops which have been necessarily sent into Persia. Counter representations were made from the Russian side against Turkish military measures in the same region, but reports from Van and Erzerum denied any further additions to the Turkish forces already on the frontier.

A report from Kasri-Shirin in April announces the occupation of Merivan (east of Suleimania) two months ago by a party of Turkish cavalry. The Ottoman authorities explain that these troops were merely a reinforcement for the Consular guard at Sihna. The Turks strenuously deny any further forward movement generally on this frontier, and profess themselves as quite willing to abide by whatever finding the Commission at present sitting may give, or, in the event of reference to the Hague Tribunal, what verdict that body may pronounce.

The representatives of the Turco-Persian frontier commission are assembled at Constantinople ready to commence their investigations, with the assistance of British and Russian advice as to previous surveys and treaties.

TURCO-BULGARIAN RAILWAY CONNECTION.—An agreement has been effected between the Turkish and Bulgarian Governments regarding the junction of the Turkish and Bulgarian railways on the Macedonian frontier. The line agreed upon will pass from Kumanovo through Egri Palanka to Keshovo.

BAGHDAD RAILWAY.—The plans for the last section of the Baghdad rail, from El Helif to Baghdad, have now been drawn up. As regards the progress on constructional work around Adana, it is reported that it is hoped to open a further 25 miles to Bozanti next August, and that 25 miles of rails have been laid northwards towards the Taurus, and from Adana eastwards 55 miles of track have been laid, on which construction trains are running.

## PERSIA.

BRITISH REPRESENTATIVE.—Sir W. Townley has succeeded Sir G. Barclay as H.B.M.'s Minister at Tehran.

RUSSIA AND PERSIA.—There appears to be little change in the number of Russian troops in Persia. One hundred Russian troops have been sent to Hamadan, that town being threatened by the adherents of Salar-ed-Dowleh.

In Meshed, the agitation in favour of the ex-Shah has again produced a serious situation. Owing to constant fighting the Russian Consul-General is reported to have proclaimed martial law and taken over control of the city with Russian troops.

At the end of March, fighting took place in Meshed, round the mosque containing the tomb of Imam Riza, between the Russian troops and the agitators. During the fighting, the tomb was injured by Russian shell fire; 39 persons in the buildings were killed and 26 were wounded. Two Russians were wounded.

SALAR-ED-DOWLEH.—Salar-ed-Dowleh has refused to accept the advice conveyed to him through the British and Russian consuls at Kermanshah, to leave Persia. A Persian force under Farman Farma is at Hamadan, and fighting will probably take place.

COMMUNICATIONS.—Telegraphic communication, apparently wireless, has been established between Baku and Cheleken Island (Caspian Sea).

Russian military motors are now running on the Julfa-Khoi road.

A Société d'Etudes for the Trans-Persian railway scheme has been formed in which British, French and Russian groups are to participate equally.

ARMS TRAFFIC.—In February, 1912, owing to the capture by the Royal Navy of a consignment of arms intended for the inhabitants of the Tarakumah district (W.N.W. of Lingeh), some 2,400 men threatened to make a raid on Lingeh. 150 Indian troops have been sent from Jashk to Lingeh, and a naval brigade is being held in readiness to land in case further reinforcements are required.

TURCO-PERSIAN FRONTIER.—See under "Ottoman Empire."

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# AERONAUTICAL NOTES.

## BELGIUM.

REORGANIZATION OF AERONAUTICAL SERVICES.—Newspapers report that the War Office intend to reorganize the department of military aeronautics as follows:—

24 aeroplanes for the field army.
6 ,, ,, Antwerp.
4 ,, ,, Liège.
4 ,, ,, Namur.
2 dirigibles.

A sum of £93,600 is to be devoted to this purpose.

## FRANCE.

AVIATION IN THE NAVY.—The Navy possesses a Buc bi-plane, and a Voisin hydroplane has been ordered and is now under trial at Versailles, and was to be sent to Toulon for further trial at the beginning of the present month.

The Minister of Marine has decided to utilize temporarily the aerodrome at Montpellier for the instruction of the naval aviation personnel; the hangars, etc., have been inspected and approved of by Commandant Daveluy. The aerodrome is near a lake and not far from the sea, which makes Montpellier very suitable for training naval aviators. Nevertheless, the establishment of the Naval School there is only a temporary measure, land having been acquired at Frejus for the Navy where an exclusively naval aerodrome is to be built.

A supplementary credit has also been asked for the purchase of ten aeroplanes, and by the time these are ready they will find the necessary hangars fit for their reception. At the same time the Navy is also experimenting with an American apparatus in the Golfe de Juan, and the cruiser "Foudre" has been specially fitted for aviation purposes with an alighting platform on the after part of the upper deck.

The Minister of Marine has provisionally fixed the extra pay to be allowed to aviation officers at 14 francs per day for superior officers, 11 francs for Lieutenants, and ten for Enseignes.—*Le Temps.*

REORGANIZATION OF AERONAUTICAL SERVICES.—M. Millerand has brought in his new Bill for the reorganization of the aeronautical services. The Bill has passed the Chamber, which, however, made certain modifications with a view to emphasizing the complete autonomy of the new service.

A national subscription for aviation has already amounted to over 2,000,000 francs (£80,000). Great enthusiasm is being displayed.

## GERMANY.

NATIONAL AIRCRAFT FUND.—A Committee, of which Prince Henry of Prussia is the patron, has issued an appeal to the German nation for subscriptions to a national fund which it is hoped will enable Germans to secure and maintain the first place in regard to aviation. All the subscriptions which have been collected within the past few weeks for aviation purposes by the separate towns in the Empire are to be handed over to the National Committee. The watchword of the movement is to be " For the people, by the people."

Up to April 21st £20,000 had been subscribed.

GERMAN AIRCRAFT LEAGUE.—A league was formed on March 7th on the lines of the Navy League, the objects being to promote the interests of military aviation, the provision of supporting points along the frontier, sheds and landing places, and the education of the public by means of literature and articles in the press.

Henkel Brothers, a champagne firm, have given £5,000 for military aviation. Mannheim and Heidelberg are raising subscriptions for the same purpose, and Rhenish-Westphalian electrical works are giving £5,000.

The Prussian budget allots £2,400 for research at the High School in Berlin and £4,600 to the school at Aix la Chapelle, together with £650 for provision of an aeroplane motor at that institution.

BAVARIAN AIRCRAFT DETACHMENT.—From April 1st a Bavarian Military Aircraft Detachment will be formed at Ober-Schleissheim, and will be about 60 strong.

### *Dirigibles.*

THE " VEEH " AIRSHIP.—A new airship of this type (three-quarter rigid) is now complete in Munich.

THE " SCHUTTE LANZ."—After lying in its shed throughout the winter this airship made its first flight this year on the 13th instant. Owing to defects in the motor and steering appliances it suddenly fell to the ground, several of the passengers being injured. As soon as the water ballast was emptied the airship rose suddenly into the air but a landing was effected with further considerable damage which it is anticipated will take two or three months to repair.

ZEPPELINS.—The Prussian War Office has ordered a new airship from the Zeppelin Company, to be ready this summer. It will be called Z.III, and resemble in most details the Z.II. It is to be 460 feet long with a speed of some 37 miles an hour.

The dirigible " L.Z.12 " which is being remodelled for the authorities is reported to be ready for undergoing trials at the hands of the military commission.

A new airship of the Parseval type has also been ordered to be ready in May. It is to have a speed of 47 miles an hour and possibly of 51½ miles; length about 260 feet and breadth 46 feet. It is to carry two machine guns, search light, and a wireless telegraph installation—the latter instrument to send messages over a distance of 187 miles. For traffic purposes it is to carry 19 to 20 persons—or for military purposes with guns, search lights, wireless equipment, about 14 persons. Cost—about £27,000.

It was erroneously reported that the P.L.VI had been destroyed. This was not the case. The airship was only slightly damaged when landing, and a man was killed.

The "M.IV." (Military IV.) which is being rebuilt should be ready for her trials this summer.

AIRSHIP SHEDS.—New folding doors are being fitted to the Zeppelin shed at Johannisthal. The latest idea appears to be to run airships out of the shed anchored to rails, when a turntable just outside the shed enables them to be turned in the required direction. The doors of the shed at Düsseldorf are being reconstructed and are eventually to be moved by electricity.

*Aviation.*

THE NORDMARK FLYING MEETING.—An airship and aeroplane meeting will be held at Kiel from June 16th to 2nd July. Prizes to the amount of £6,125 will be awarded. including £250 from the War Ministry, which will also buy for £1,250 a machine of the same type as that which wins the Army prize.

INSTRUCTION IN FLYING.—The military authorities have come to an arrangement with the various flying schools in Germany by which officers are enabled to obtain preliminary certificates in flying at these institutions before attending the course at Döberitz. Further, at Strassburg and Metz courses similar to those held at Döberitz are being instituted in order to cope with the rapidly increasing number of would-be military aviators. Metz is being equipped with eight biplanes and six monoplanes. Strassburg with six biplanes and six monoplanes.

It is stated that in future a proportion of non-commissioned officers are to be trained as pilots. This is a new departure and at present is confined to Prussia.

AEROPLANES.—The Fokker monoplane is being experimented with at Johannisthal and possesses unusual stability. The inventor is now constructing a machine for the Prussian military authorities, who are said to be much impressed with the value of the invention. Among other advantages it can be very quickly dismantled and put together.

On February 21st a new type of monoplane designed by Hirth made its appearance. There are two propellers and two engines by which not only can great speed be attained but defects in one engine or propeller will not necessitate a landing.

The War Office is said to have ordered 40 aeroplanes of the "Taube" type for delivery in May.

NAVAL AVIATION.—It is stated that prizes are to be given for the construction of hydro-aeroplanes. The conditions would require that the machine should have 2 seats, be navigable in a high wind, and be able to alight on and to ascend from rough water. Up to date about ten naval officers have been granted pilots certificates.

BOMB DROPPING EXPERIMENTS.—Successful experiments have been carried out near Danzig with an invention consisting of an automatic attachment for releasing bombs from aircraft—better results have been attained in this way than by dropping missiles on a target by hand.

## JAPAN.

AVIATION IN THE NAVY.—The Imperial Diet passed at its last session an appropriation of 100,000 yen (approximately £10,000) for aeronautical work in the Navy. A large piece of land on the sea shore at Yokosuka (just south of Yokohama) will be prepared for this purpose, and will be provided with all the necessary buildings, etc., as are the military aeronautical grounds at Tokorozawa. Certain airmen also will be sent abroad to study. Practices will commence next year.

### OTTOMAN EMPIRE.

AVIATION.—£T17,000 has been granted for the establishment of the Aviation School near Scutari, on the Asiatic side of the Bosphorus. A public subscription has also been started for an aerial fleet, and 2 aeroplanes have now arrived from France.

### UNITED STATES.

AEROPLANE CIRCUIT.—It is announced in the Press that the Aero Club of America is organizing an aeroplane circuit of 1810 miles to be held next August. The route proposed is Chicago, Milwaukee, Cedar Rapids, Des Moines, Omaha, St. Joseph, Kansas City, Jefferson City, S. Louis, Charleston, Indianapolis, Cincinnati, Columbus, Cleveland, Toledo, Detroit, Chicago.

The circuit is to be open to licensed pilots of all nationalities. £20,000 will be given in prizes and there will be special prizes for:—

(a) Least h.p. to complete course. (b) Passenger carrying. (c) First to flash a W.T. message to a control. (d) Greatest number of W.T. messages delivered. (e) Best maps made en route. (f) First aeroplane fitted with stabilizer to arrive. (g) Most completely equipped machine.

It will thus be seen that every inducement is to be given to bring out the practical side of aviation.

## NOTICES OF BOOKS.

**The History of the Royal Artillery (Crimean Period).** By Colonel Julian R. J. Jocelyn. With maps and illustrations. London. John Murray, Albemarle Street, W., 1911.

In this volume Colonel Jocelyn takes up the story of the Royal Regiment of Artillery from the point at which Colonel H. W. L. Hime left it in his History of the Royal Artillery from 1815 to 1853. That history treated of 40 years of almost unbroken peace; for the Royal Regiment took no part in our Indian and Afghan Wars. Colonel Jocelyn's book treats of the succeeding years, a period of storm and stress, during which the old order changed and gave place to the new. It was a period of transition; up to the middle of the nineteenth century the armament and equipment of our military forces had undergone but little alteration since the days of Marlborough.

The infantry soldier still carried his smooth-bore musket and 60 cartridges; the gunners of a field battery still marched on foot beside their guns. The artillery was organized in troops of Horse and battalions of Foot Artillery; at the outbreak of the Crimean War there were seven of the former and twelve of the latter; at its conclusion they had been augmented to eight and fourteen respectively. The headquarters of the Brigade of Horse Artillery and of all the battalions of Foot Artillery were at Woolwich, but the troops and companies were scattered throughout the United Kingdom and the Colonies. The battalions could never be kept together; the eight companies composing them were stationed singly in coast defences, or were grouped in the great fortresses of the Empire under the command of a Lieut.-Colonel. A dual control existed in the Army; the cavalry and infantry were under the Commander-in-Chief, the artillery and engineers were under the Master-General of the Ordnance. There was some jealousy and sometimes friction between

the Horseguards and the Ordnance Board. The scientific corps being non-purchase, promotion was by seniority only, and there were no artificial means of accelerating it, as there are to-day by age limits and compulsory retirement; artillery officers died in harness at the age of 80 years. "Zeal and attachment" wrote Colonel Chesney, "bind him to his country's service; neither age, infirmity, nor suffering health can drive him from it." A similar state of things prevailed in the Honourable East India Company's Artillery. Their differing systems of appointment and promotion drew a sharp line of demarcation between the scientific corps and the rest of the army. "Poor and proud, like an artillery officer" was one of the many gibes indulged in by the wealthy Guardsman or Linesman at the expense of his better-educated comrade, who obtained his commission by nomination, and his promotion by rotation. But this state of things was swept clean away by the outbreak of the Crimean War. Colonel Jocelyn relates how "when Lord Raglan met Lieut.-Colonel R. J. Dacres, R.A., in the Crimea, he, in his kindly fashion, asked him how he was getting on. 'My Lord,' replied Dacres, 'when a man has been 20 years a subaltern he can never get on!' Before a year had passed Dacres was a Major-General, and he died a Field Marshal."

The British Army in those days, as at the present time, was organized for the purpose of garrisoning the Empire in time of peace, and not for the work of war; it was, moreover, totally unprovided with the auxiliary establishments necessary to enable an army to take and keep the field with efficiency; it had no military train, no ambulance corps, no organized machinery of transport and supply; it was simply a collection of splendid squadrons and battalions, with no higher unit of organization.

The troops of Horse Artillery were complete and permanent units, but the Foot Artilleryman was a Jack-of-all-trades, alternately and indiscriminately employed as a driver of a field battery, or as a field siege or garrison gunner, as opportunity offered or occasion required. In the Crimea the Artillery organization was fuzed in the crucible of war, and re-cast in the light of experience. Colonel Jocelyn in the Introduction which precedes his narrative, says, "It is the purpose of the following pages to describe the part borne by the Royal Artillery in those troubled times, and to show how, under the stress of war, its organization was shaped and developed." In 1860 the battalions and companies of Foot Artillery were re-formed in Brigades and batteries of Field and Garrison Artillery, but the Brigade system was found to labour under the same disadvantages as did the battalion system before it, the chief of which was the inevitable scattering of the batteries of a Brigade in widely separated Colonial and foreign garrisons, under separate military commands, and was in its turn abandoned. Since then the Royal Regiment of Artillery has undergone many vicissitudes, but tradition and custom are still potent factors in the constitution of our Army, and though there has been a definite separation between the Field and Fortress Artillery, the integrity of the Regiment on paper has been jealously guarded. But these changes are beyond the scope of Colonel Jocelyn's book, which leaves the history just at the point when the strength of the Regiment was about to be inordinately swollen by the inclusion in it of the East India Company's three regiments of Bengal, Madras, and Bombay Artillery.

The first three chapters of Colonel Jocelyn's history treat of the composition, formations, and interior economy of the Royal Regiment

from 1854 to 1858, and the copious and detailed information they contain is supplemented by tables showing the varying strength, armament, and equipment at different periods. The remaining six chapters of the work record the services of the Regiment during the two years of the Crimean War, and as the motto of the Artillery is appropriately "Ubique" the history of the Regiment includes the history of the war. The author has not wasted time or space in digressions on the political situation in the South-East of Europe, or on the causes of the war, but has confined himself to a record of the military operations, which resolved themselves into a contest between the Allies and the Russians for the possession of the fortress of Sebastopol. The siege lasted for a year, and after six bombardments and two general assaults, the southern half of the town fell into the hands of the besiegers; but the part to the north of the harbour remained in the hands of the Russians till the end of the war. Sebastopol might, no doubt, have been taken by a *coup de main* after the battle of Alma, but, as usual in the case of divided counsels, the more timid prevailed, and the desire to avoid an immediate sacrifice of life led to a much greater waste of it in the siege operations, carried on with inadequate means and insufficient forces during an exceptionally severe winter. But the mistakes of diplomacy and the errors of strategy were redeemed by the matchless heroism of our old soldiers, whose courage never quailed before the most fearful odds, and whose devotion never faltered in face of the most trying hardships and privations. Colonel Jocelyn thus describes the gunner of the Crimean period.

"The men were of that excellent type now passed away, the long service man, unknown to the present generation of regimental officers—a type often the reverse of exemplary, often hard-drinking, and sometimes with defaulter sheets of portentous size, but who would follow their officers anywhere, and face with stolid endurance the furious heat of Lucknow or the ice-bound trenches of Sebastopol. It was this type who produced the steadfast squares of Waterloo, who wielded the sabres of Uxbridge and of Scarlett, who stood behind the guns at Albuera and at Inkerman—a type that had grown accustomed to the smiles of Victory, and who, even in defeat, could pluck a laurel from her brow. With other times come other manners. In some of its aspects military life has greatly improved in the last half-century; but the people of this country, so long as they deserve their imperial heritage, will never forget the uneducated, hard-living, stout-hearted, gallant old soldiers of the Peninsula, the Crimea, and the Mutiny."

The British soldier of the present day is more moral, more temperate, and better educated than his predecessor, but he cannot fight better than the men of Badajos and Inkerman.

Though principally concerned with the actions of the Artillery, Colonel Jocelyn's book contains an excellent history of the whole campaign in the Crimea, in which the author has neither included anything superfluous nor omitted anything of importance. In a future volume he will give us the history of the services of the Royal Artillery in the suppression of the revolt of the Sepoy Army of Bengal. The present volume leaves the story at the conclusion of the Crimean War by the Peace of Paris. There are some eighty tabular statements dealing with the personnel, materiel, strength, distribution, and organization of the Regiment, nominal and casualty rolls, returns and reports, etc., some included in the text, others in the Appendices which succeed every chapter in the book, which is provided with a comprehensive table of contents and list of authorities, and well supplied with notes and references to the works

of Kinglake and Todleben, and a good index. It is illustrated with some twenty half-tone engravings, including portraits of Sir Richard Dacres and Sir Robert Gardiner, views of sites in the Crimea, scenes in the trenches and in Sebastopol, and there are numerous wood-engravings in the text.

There are also some plans of the scene of operations in the Crimea, and a series of good maps, illustrative of the principal actions in the war, at the end of the volume. The few misprints in the text are due, probably, to a misreading of manuscript. At page 57 Cocyra should be Corcyra, and on the next page Orta should be Arta.

At page 119 the heights usually called Fedioukine are spelt Fidioukine, and at page 377 " forgo " is printed instead of " forego." And at page 187 it is stated that the sailors fired with precipitous haste, instead of precipitate haste. The services of the I Troop R.H.A. in the Crimea in 1854 are narrated, but as there were only seven troops of Horse Artillery existing at that time, it is not clear how the lettering of the troops got so far in the alphabet. But these are trifling errors and omissions in a work of such magnitude and such merit, of which we hope to see a speedy continuation.

F.H.T.

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# FOREIGN PERIODICALS.

## NAVAL.

### AUSTRIA-HUNGARY.

MITTEILUNGEN AUS DEM GEBIETE DES SEEWESENS. Pola: **No. V. 1912.** —Thoughts on the employment of torpedo-boats. The year book of the *Schiffbautechnische Gesellschaft.* The salving of the Italian armoured cruiser " San Giorgio." The motor-driven ships " Selandia " and " Jutlandia." Protection of warships against torpedoes, mines, and under-water hits. The Italian naval Budget as sanctioned. The Japanese naval Estimates for 1912-13. The *Harlé* system of submarine mines in France. Progress in the building of the Panama Canal.

### FRANCE.

LA MARINE FRANCAISE. Paris: **March, 1912.**—Not received. **April, 1912.**—The naval programme. Labour legislation in the Navy. The value of naval expenditure. Pensions for civil employés. Powders and magazines. The law of 4th March, 1912, and its effect on the corps of mechaniciens. The modern battleship and its importance as an instrument of battle.

REVUE MARITIME. Paris: **March, 1912.**—Notes on the manœuvring of ships in group. The " artillery coefficient " (by Vice-Admiral Gaschard). A study of the French laws on wrecks and wreckage. A treatise on guns for landing parties. The theoretical principles of aviation.

LA VIE MARITIME. Paris: **10th April, 1912.**—The naval reforms. The defects of the British cruiser " Lion." Notes on boilers. † **25th April.**—The command of the sea (by C. Bos). Cruisers and Scouts. Notes on foreign navies. Notes on boilers. †

LE YACHT. Paris: **6th April, 1912.**—The organization of the higher command. **13th April.**—The changes in the conditions of service of naval officers. **20th April.**—The naval war game. The submarine transport

*—to be continued. †—continued. §—concluded.

ship "Kangaroo." **27th April.**—The Scheme for the organization of naval defence in 1913. Means for saving life on large steamers.

LE MONITEUR DE LA FLOTTE. Paris: **6th April, 1912.**—Our future battleships. The naval law for the reorganization of the fleet. **13th April.**—What form will the next naval manœuvres take. The reorganization of the flotillas. **20th April.**—Strategy and positions. The service of security on warships. **27th April.**—The British naval Budget. The new law of pensions.

## GERMANY.

MARINE RUNDSCHAU. Berlin: **April, 1912.**—Frontispiece, the battle-cruiser "Moltke." The decline of Dutch sea power, 1650-1713. † The passing of the French naval law. Germany's share in Antarctic exploration. Poisonous gases in coal bunkers of ships. Statements by influential persons in America on U.S. naval policy. The meeting of the *Schiffbautechnische Gesellschaft*. The Turco-Italian War.

## ITALY.

RIVISTA MARITTIMA. Rome: **March, 1912.**—The late Admiral Aubry. The employment of artillery in one-calibre gun ships. The Chinese Republic. The progress of naval architecture in 1911. **Supplement.**—The salving of the "San Giorgio."

# MILITARY.

## AUSTRIA-HUNGARY.

STREFFLEURS MILITÄRISCHE ZEITSCHRIFT Vienna: **April, 1912.**—Not yet received.

## FRANCE.

REVUE MILITAIRE DES ARMÉES ETRANGÈRES. Paris: **April, 1912.**—Aerostation and aviation in Germany. * (Part 1. dirigibles and sheds). The German Imperial Manœuvres in 1911. The tactics of the Austro-Hungarian Infantry.

REVUE d'HISTOIRE. Paris: **April, 1912.**—Belle-Isle as a Minister; the reforms of 1758. § The campaign of 1794 in Holland. † The Army of the East under Kleber. † The campaign of 1813; the preliminary stages. † The war of 1870-1871; the First Army of the Loire. † The military works of Moltke; the tactical preparation of the battle.

JOURNAL DES SCIENCES MILITAIRES. Paris: **1st April, 1912.**—The regulations for the instruction of infantry in musketry. * From 1870 to 1912. * (a study of the doctrine of strategic defence in France). Impressions of a foreign officer attached to an army corps of the French covering troops. The projected reorganization of the French cavalry (a proposed solution). Historical study of the laws of discipline in France. **15th April.**—The freedom of action of the higher commanders. § Regulations for the instruction of infantry in musketry § (with two sketches). The question of a light field howitzer. Impressions of a foreign officer in an army corps of the French covering troops. § From 1870 to 1912. §

LE SPECTATEUR MILITAIRE. Paris: **1st April, 1912.**—Considerations affecting marching and fighting by night. † The engagement at Bir Tobras (a clear account with three sketches). Military aeronautics. On the Maroccan frontier † (a battalion on the Algiers-Marocco frontier in 1905). **15th April.**—Considerations affecting marching and fighting by night. Questions of doctrine (a day's operations with a German cavalry corps at the manœuvres of 1909). † The expedition to Sardinia. † On the Maroccan frontier.

*—to be continued. †—continued. §—concluded.

REVUE MILITAIRE GÈNERALE. Paris: **March, 1912.**—The possibility of the manœuvre of Montmedy, in August, 1870 (a strategical study). Observations on unity of doctrine † (comments on Lieut. Baudry's article on "the naval battle"). The duties of the covering troops, by Captain Culmann. † The rôle of the fortresses during the concentration in 1870. Studies of the Russo-Japanese War. † Napoleon in the field. † (methods of inspection and review).

## GERMANY.

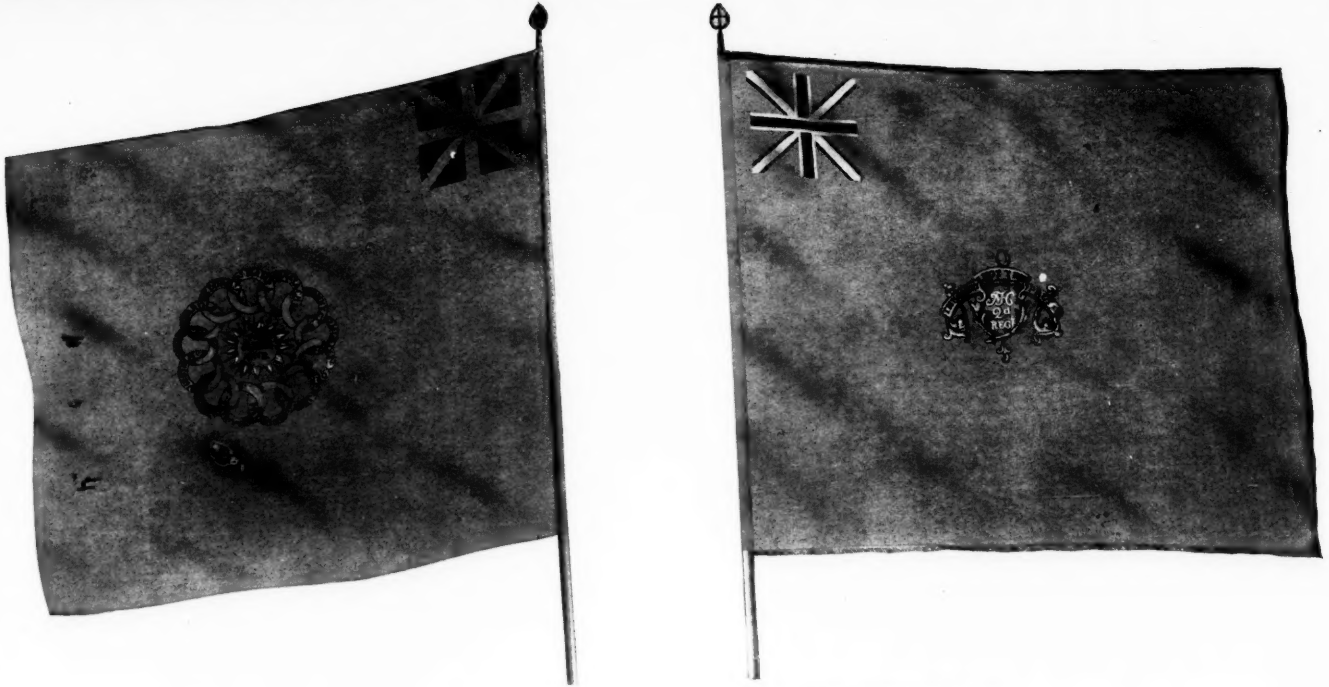
MILITÄR WOCHENBLATT. Berlin: **No. 44 of 2nd April, 1912.**—The conduct of the battle, and training for the battle, by Gen. v. Falkenhausen, review of book by Col. Löfler (concluded in No. 45). The new regulations for the native troops in German East Africa. Artillery escorts. German wireless stations in Africa and China. **No. 45.**—The situation in the winter of 1761-62 (concluded in No. 46). Notes on the French Army (concluded in No. 46). **No. 46.**—Experiences of a Japanese doctor at Port Arthur. **No. 47.**—The artillery during the infantry attack (concluded in No. 48). Intercommunication in the Russian Army (with three diagrams) (concluded in No. 48). The signalling of important orders or reports in action. Meteorology in the service of strategy. **No. 48.**—Retirement of Gen. Kleist. **No. 49.**—The Brunswick regiment in Spain and Portugal; Badajoz and Salamanca. "Modern War" (a reply by Gen. Bernhardi). The offensive-defensive. **No. 50.**—The campaign in Russia in 1812 (continued in No. 51). Judging distances. Technical military training in the Russian Army. The technique of machine-guns. **No. 51.**—The transmission of orders during the infantry combat. The allotment of artillery positions. **No. 52.**—The military spirit. The Turco-Italian War No. xix. **No. 53.**—Cæsar's strategy (continued from No. 33). **No. 54.**—Sorties in fortress warfare. **No. 55 of 30th April.**—March orders of Prince Eugene of Savoy. French manœuvres and field exercises. The transmission by signal of important orders in action (the Austrian code).

INTERNATIONALE REVUE. Cologne: **April, 1912.**—Germany: Alterations to the cavalry regulations. Field engineering for all arms. France: Aeronautics; manœuvres; military organization of Marocco. Greece: Army reforms. Italy: Military Budget; organization. Japan: Naval programme. Austria-Hungary: Changes in organization; motor trains. Russia: Reorganization of infantry machine-guns. Switzerland: Military Budget. **French Supplement 157.**—Organization and tactics of the Japanese field artillery; the Krupp 28-cm. howitzer; expenditure of ammunition in the Russo-Japanese War. **German Supplement 139.**—The attack and defence of entrenched positions.

## ITALY.

RIVISTA MILITARE ITALIANA. Rome: **April, 1912.**—Mahomet, the Koran and Islam. § Heavy field artillery (Matériel, employment and organization). § From Quarto to Palermo (a lecture on the movements of Garibaldi and his thousand volunteers from their departure from Quarto near Genoa to their entry into Palermo). The new Italian territory in Libya. † The conduct of the war between the Arabs and the French. § Military art in the time of Alessandro Farnese. Initiative. Foreign armies. The new organization of the Portuguese Army. Statistics of the levy of youths born in 1889. The projected new regulations for the Austro-Hungarian Army. † The German and French grand manœuvres of 1911. †

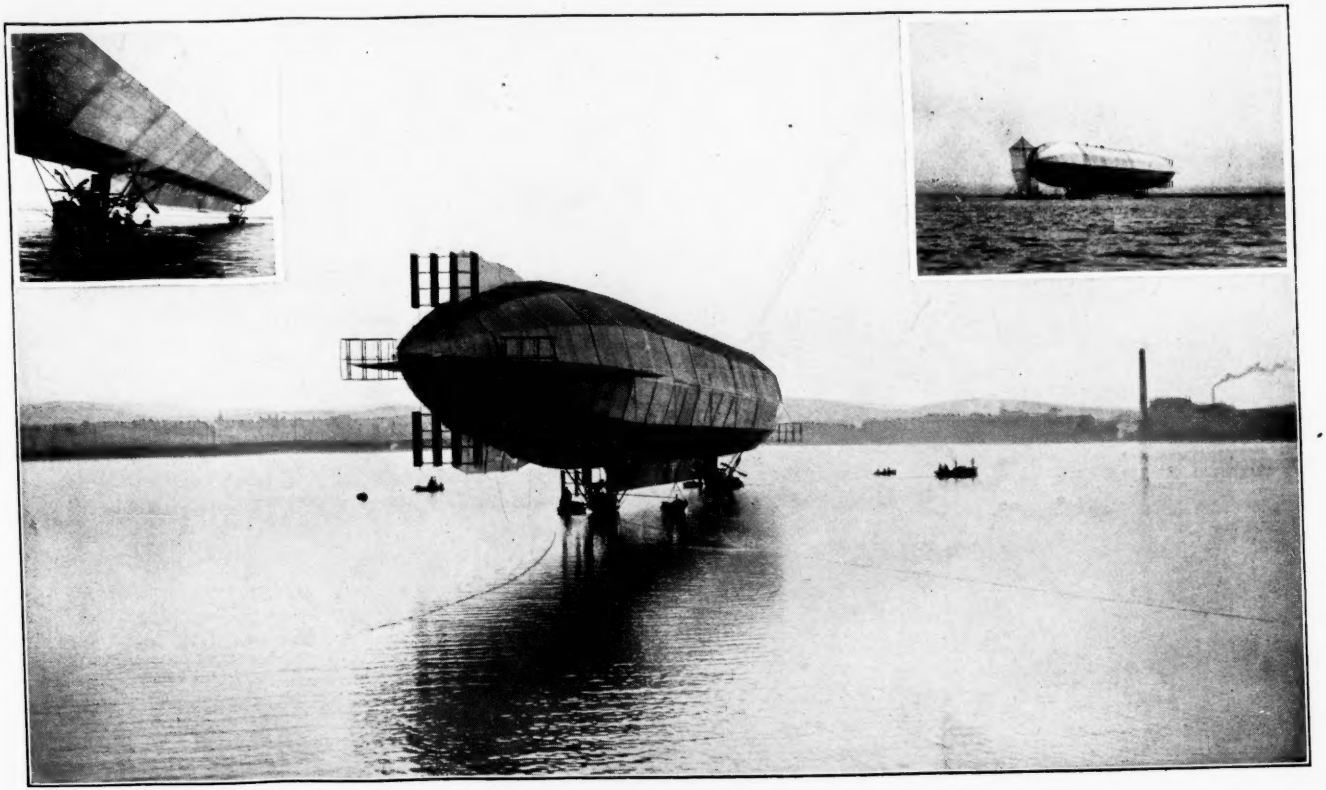
*—to be continued. †—continued. §—concluded.




**COLOURS OF THE 2nd NEW HAMPSHIRE REGIMENT.**

*Captured by the 9th Foot in 1777 in the American War of Independence, and recently sold to the State of New Hampshire, U.S.A.*

[It is pointed out that up to the present only £11 has been subscribed to the Museum Purchase Fund.]



**THE NAVAL AIRSHIP No. I.**

*Which was wrecked, owing to an accident when launching, in September,* 1911.

**THE NAVAL AIRSHIP No. I.**

*Which was wrecked, owing to an accident when launching, in September, 1911.*